

AMERICAN JOURNAL OF ARCHAEOLOGY



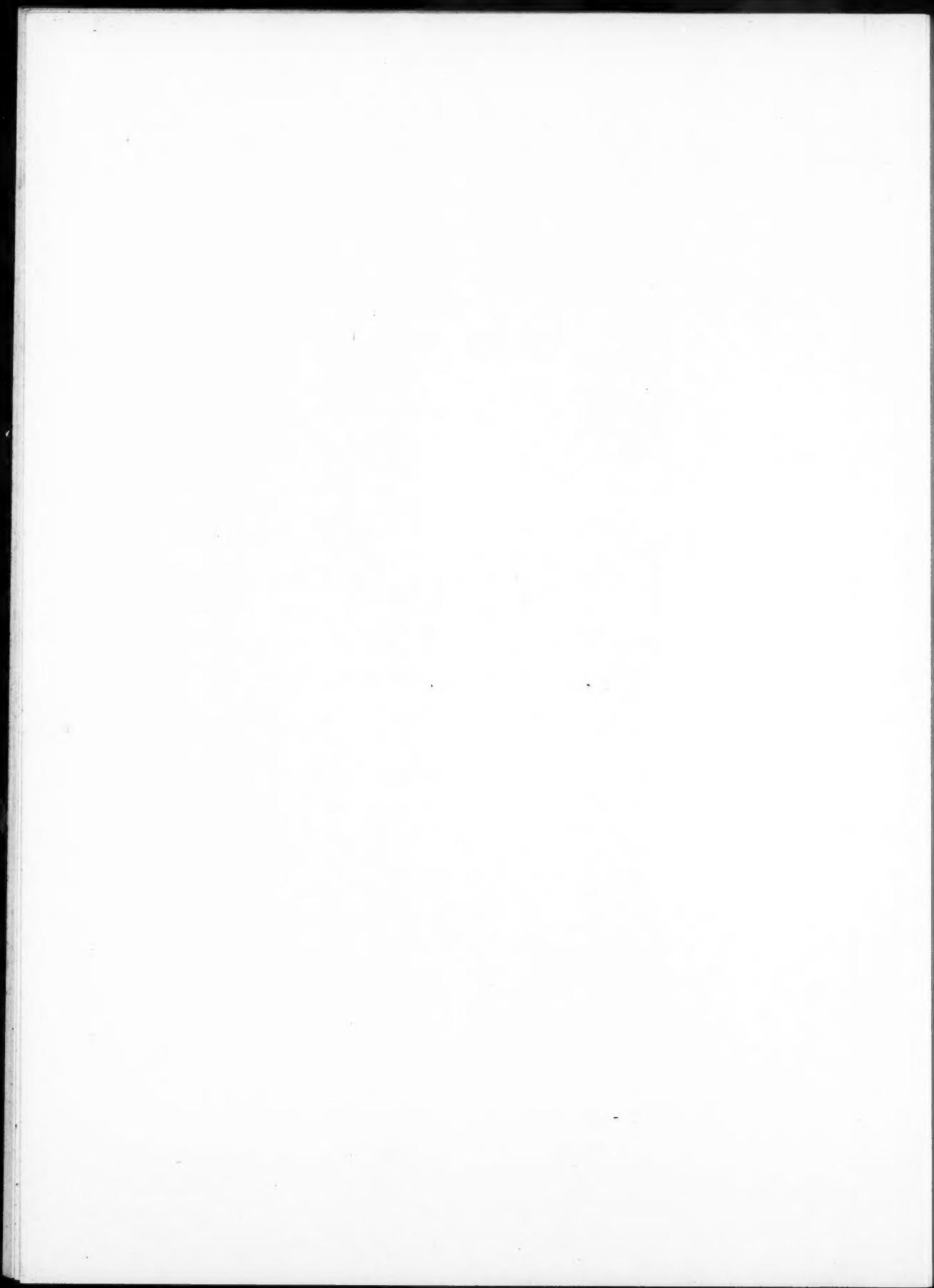
THE JOURNAL OF
THE ARCHAEOLOGICAL INSTITUTE OF AMERICA
PUBLISHED QUARTERLY BY THE INSTITUTE

JANUARY-MARCH 1938

VOLUME XLII. NUMBER 1

Printed by the Rumford Press, Concord, N. H.

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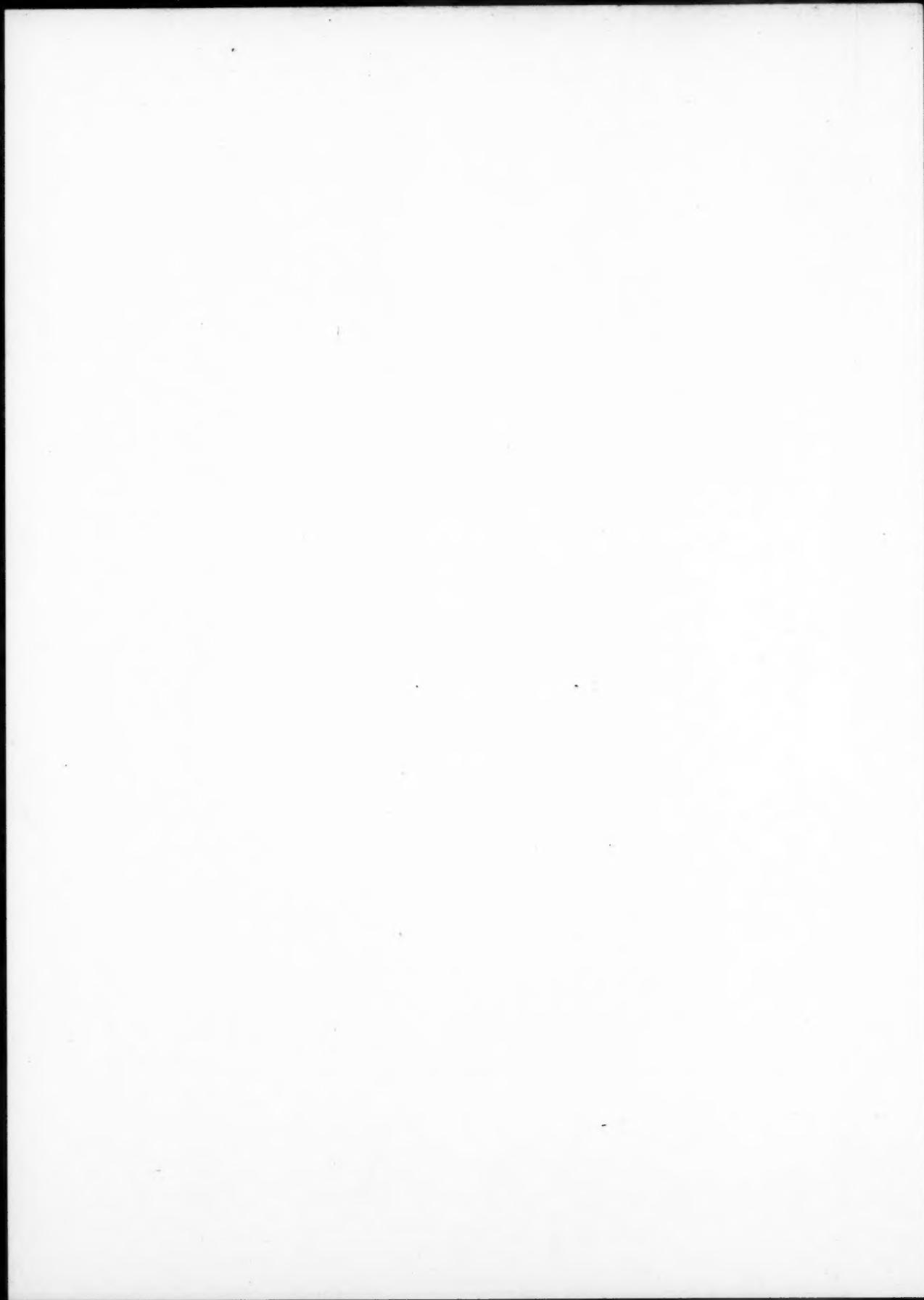


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ARCHAEOLOGICAL NOTES

LATTER PART OF THE 1937 CAMPAIGN IN THE ATHENIAN AGORA

THE following brief account of the latter part of the Agora campaign of 1937 is a continuation of the report on the results of the first half of the season published in *A.J.A.* xli, 1937, pp. 177-189. The aim of these preliminary reports is merely to describe in general terms the more important discoveries and to illustrate a selected number of the more interesting objects.

The site of the temple of Ares had been entirely cleared by the end of the season. It is marked by an arrow on the photograph of the excavated area and its environs, taken by the Air Branch of the Ministry of Communications on July 26 (Fig. 1). The proportions of the building, as tentatively given in the earlier report (*loc. cit.*, p. 177), are not correct. At the time the report was written the foundations had not been cleared of the overlying Byzantine walls and only very approximate measurements were available. The dimensions, as now ascertained, are 36.36 by 16.76 m., measured on the course below the euthyneria. The remaining architectural pieces of the superstructure make it possible to estimate the intercolumniation as about 2.80 m. It is thus possible to restore on the existing foundations a Doric temple slightly larger than the Hephaisteion, with six columns on the ends and thirteen on the sides.

The foundation blocks, which are preserved in some places at the east end to a height of five courses, were carelessly laid and many had been removed, probably in late Roman times. Some of the blocks have anathyrosis and lewis-holes, which are not set at places suitable to their present position, an indication that these blocks have been re-used. This view is confirmed by the late type of masons' marks appearing on them. Since by these marks the blocks are carefully numbered, it is probable that the temple had been removed from some other site and re-erected in its present location (Fig. 2). The ancient ground level, which is partly preserved against the highest blocks on the northern and eastern sides, is of the early Roman period, and to this age may be assigned the construction of the present building. The appearance of the blocks themselves, however, and the style of the surviving pieces of the superstructure point to the second half of the fifth century B.C. as the time of their original fabrication.

The suggested identification of this temple as that of Ares is supported by its correct position in the sequence of buildings mentioned by Pausanias, and by literary references to the position of two statues. The sanctuary of Ares is localized by Pausanias (I, 8, 4) near the statue of Demosthenes, but the statue is placed by pseudo-Plutarch (847 A) near the Altar of the Twelve Gods. The newly discovered temple, lying just south of the Altar of the Twelve Gods must, therefore, be the Temple of Ares. Further, the statue of Pindar stood by the same temple according to Pausanias, but a reference in pseudo-Aeschines (*Epis.* 4, 3) places it in front of the Stoa Basileios. And, although the problem of the identification of that stoa is not yet solved, it certainly was situated in the northwest corner of the Agora. Thus the discovery of this temple has provided topographical evidence of the greatest value,

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FIG. 1.—EXCAVATED AREA AND ENVIRONS SEEN FROM THE AIR

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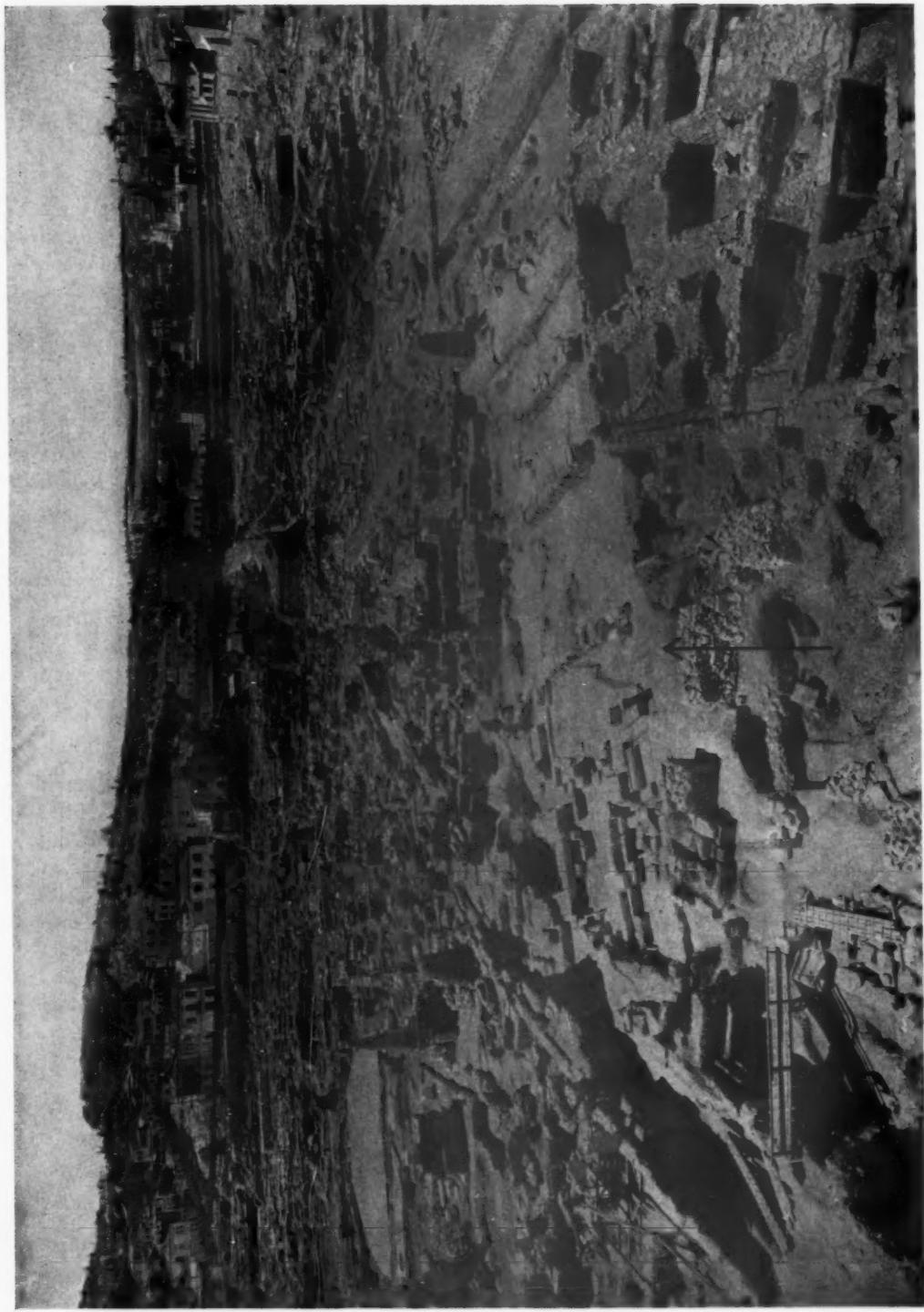


FIG. 2.—FOUNDATIONS OF THE TEMPLE OF ARES

which clarifies the description of Pausanias and confirms the identification of buildings previously uncovered in the excavations.

The investigation of the Valerian Wall on the east side of the area produced interesting results. The wall was uncovered for its entire course from the Stoa of Attalos to its terminus at the bastion below the Propylaea. At the south end it was preserved to a height of seven courses over the remains of an earlier paved building beside the Klepsydra. When a stretch of the wall nine metres long had been there removed, in order to disclose the structure beneath, important evidence was secured for the determination of the date of its construction, a problem which has been much disputed. Sixteen coins were found under the wall in a thin layer of mortar on the floor of the earlier building, on which the wall had been set. They were lying in a space of less than one square metre and could have fallen there only at the time of the building of the wall. Perhaps they were dropped by a careless workman. The coins are classified as follows: Aurelian (270-275 A.D.), 10; Severina, 2; Tacitus (275-276), 2; Florian (276), 1; Probus (276-282), 1. They are thus dated within a span of twelve years and fix the date of the construction of the wall in the last quarter of the third century. It was mainly built of re-used blocks of marble and poros and was evidently put together hastily, to provide the city with some means of defense after the destructive raid of the Herulians in 267.

The building in front of the Klepsydra, the purpose of which has not yet been determined, and the chamber of the Klepsydra itself were cleared, so that photographs and accurate measurements could be taken. The neighboring slopes of the Acropolis were also investigated. There groves of small pines and cypresses are now growing in a thin deposit of earth, but, when this earth had been scraped away from the rock, in the intervals of the trees, the surprising discovery was made of a number of wells of the prehistoric period. All the twelve wells cleared, with one exception, were located near the Klepsydra, and the reason for such grouping is that there the water table is high and it was necessary to cut only a short distance through the rock in order to secure a sufficient supply. With the primitive tools at the disposal of the prehistoric peoples it must have been a difficult undertaking to excavate the living rock, and, in fact, the shafts are poorly cut and extend only to depths varying from 1.80 to 8.80 m.

Two periods of the prehistoric age are represented by the wells, four of them having contents of the Late Neolithic and of the Early Helladic type, and eight having a Middle Helladic deposit. Besides a great quantity of pottery, the contents included chips of obsidian, stone mortars used for grinding grain, and human and animal bones. Among the bones are those of the cow, pig, goat, sheep, stag, red deer, dog, bird, turtle, and fish. Supplementing the wells, a few pockets in the rock, containing undisturbed prehistoric filling, prove that the early settlement here must have been one of considerable size, although no trace of house walls of the period has yet been found.

Many baskets of sherds of pottery were secured, but they were found near the end of the season and have not yet been sorted and mended. Some handsome vases, preserved in perfect or almost perfect condition, form the most important additions made by the campaign to the Agora collection of pottery. The earliest prehistoric

ware is hand-made, and the better specimens have been given a lustrous polish. They are both black and red in color, but one red bowl has been unevenly fired, so that irregular patches of black appear on the surface. This ware seems to belong to the very end of the Neolithic period, perhaps falling between the Neolithic and the Early Helladic. Some vases which are certainly of the Early Helladic class were found, but it is significant that in all the great quantity of sherds not a single piece of a sauce-boat was included, although this is a characteristic Early Helladic shape. A possible inference is that the sauce-boat is a shape which was developed later in the period than the time to which the Agora vases are to be assigned.

One of the early vases of black polished ware, shown in Fig. 3, has a rounded



FIG. 3.—BLACK POLISHED BOWL



FIG. 4.—MIDDLE HELLADIC BRIDGE-SPOTTED JUG

bottom, vertical loop handles, an out-flaring rim, and two small protuberances on the front. Its shape is reminiscent of some of the early pottery from Troy.

The Middle Helladic group is represented by some fine complete pots, which fall into two well-known categories, the matt-painted ware with dark decorations on a light ground, and the ware with designs in white on a dark ground. A spouted jug of graceful shape and of beautiful fabric is presented in illustration of the first class (Fig. 4). It has horizontal loop handles and a bridge across the spout at the rim. Below the rim is a narrow band, ornamented with zigzag design, beneath which a running spiral is painted around the vase. This vase is undoubtedly of local manufacture, but its shape resembles that of Middle Minoan vases found at Knossos (cf. Evans, *The Palace of Minos*, I, p. 268, Fig. 199e). Its presence in Athens indicates some inter-relationship between the contemporary civilizations of the Islands and the mainland. Definite proof of local manufacture is provided by a *Fehlbrand* in the deposit, a cup of which the side was accidentally dented before the firing of the vessel.

The second category of Middle Helladic ware may be illustrated by a spouted pitcher, which is complete except for the tip of the spout (Fig. 5). The vases of this group are hand-made, of coarse red clay, on which the linear and curvilinear designs are painted in white. The paint is flaky and is removed if subjected to any rubbing. Included in the Middle Helladic deposits were also undecorated vases and many fragments of gray Mycenaean goblets.

The deposits of the two prehistoric periods were distinctive in their respective wells, so that it is evident the later peoples did not use the wells of their predecessors,

but cut new shafts through the rock. In general the shafts of the Middle Helladic wells are deeper than those of the Neolithic, but they are not made with any greater care. The third prehistoric period, the Late Helladic, is represented by only a few sherds, and practically nothing of the Geometric epoch was found in this particular area.



FIG. 5.—MIDDLE HELLADIC LIGHT-ON-DARK WARE

Several heterogeneous vases of particular interest, secured from various parts of the excavation, will now be briefly described. A fine red-figured fragment, dated early in the second quarter of the fifth century, is decorated with the scene of the Judgment of Paris (Fig. 6). On the right of the group Paris sits in a nonchalant attitude, on a rock beneath a tree. He holds a club in his left hand, and rests his right elbow on his right knee, with his hand supporting his chin, so that he gives the appearance of being in a reflective mood as he considers the relative merits of the three goddesses. In front of him stands bearded Hermes who holds the caduceus in his left hand and, with his right hand extended, introduces the goddesses, the first of whom, Hera, is standing beside him, with a long sceptre in her left hand and with her right hand resting on her hip. Pieces of this same vase, with part of a fourth figure, probably Athena, had been found previously in the excavations.

A vase of the late red-figured style, simply and carelessly decorated, has a curious shape (Fig. 7). To a hollow, ring-shaped base, three small vases of skyphos shape are attached, each of which has a hole in the bottom, which opens into the channel of the base. The scheme somewhat recalls that of the kernos and may have been used for liquid offerings to the Eleusinian



FIG. 7.—LATE RED-FIGURED VASE. RESTORED



FIG. 6.—RED-FIGURED FRAGMENT WITH THE SCENE OF THE JUDGMENT OF PARIS



FIG. 8.—GROTESQUE FIGURES ON A ROMAN VASE

deities, as the kernos was for the first fruits of the field. It was found in a well on the Kolonos Agoraios in a closed deposit, dating from the end of the fifth century. Other red-figured pottery with it included a krater and an amphora, the former decorated with a ceremonial scene in which youths with wreathed heads are engaged, and the latter bearing a sacrificial scene, in which youths and a maiden are leading a bull to the altar.

Much interesting pottery of the Roman period was secured during the year. Stratified deposits in wells not only provided valuable information for establishing the chronological sequence of the wares but also produced some unusual individual pieces. A remarkable vase came from a well on the Kolonos, with contents dating from the first century B.C. to the first century A.D. This is a one-handled pitcher of red ware with a well finished surface. The exterior is decorated with three large, grotesque figures which were made separately in moulds and applied to the wall of the vase (Fig. 8). The figure on the front is almost a skeleton in appearance. A high, peaked hat is on its head and a large round ball rests on the back of its neck. The side figures, both made in the same mould, have an elongated beak for a nose, and wear the pointed cap pushed back on the head. The shape of the vase is clearly an imitation of metal ware, as is especially evident in the ribbed handle and in the sharp ridges at lip and shoulder. The fantastic figures recall the skeletons representing poets and philosophers on a contemporary silver cup from Boscoreale in the Louvre. Perhaps they are caricatures of mimes, the actors in the comic farces popular in Greece and Rome at this period.

A vase in the Berlin Antiquarium, dated by Zahn (81st *Winckelmannsprogramm*, p. 14) in the time of Augustus or Tiberius and attributed to an Anatolian pottery is decorated with relief figures of a skeleton and of grotesques, very similar to those on the new piece from the Agora.

Two different wells on the Kolonos produced plastic vases of identical type from contemporary deposits of the third century A.D. One of these is preserved in perfect condition except for the peeling of the surface paint (Fig. 9). It is in the shape of a child's head, with large, staring eyes and an infantile expression. Long locks of hair hang down on the forehead and in front of the ears. The entire surface had been covered by a white slip, on which certain details had been picked out in red, traces of which remain on the lips, ears and eyes, and on a necklace encircling the neck. Conspicuous is a large circle in the centre of the forehead, which had also



FIG. 9.—PLASTIC VASE OF THE ROMAN PERIOD

probably been painted red. The head was formed by the cementing together of the front and back halves, which had been made in separate moulds. The top, with the trefoil lip, and the handle had also been made separately and attached. The object is far from handsome and certainly was not manufactured with so much elaboration to appeal merely to aesthetic taste. The presence of the circle on the forehead suggests that these vases were intended for some ritual use.

In the field of sculpture many additions were made to the collection, several of which will be illustrated. A handsome life-sized head of a woman, made of Pentelic marble, was taken from a well which produced much pottery of the first and second centuries A.D. The head is well preserved, except for an injured nose (Fig. 10). In the softness of the features, in the full cheeks, narrow eyes, and thick lower lip, the head resembles the type of Aphrodite favored by Praxiteles. Although the contents of the well prove that this head was thrown away in the Roman period, it exhibits no characteristics of Roman technique and should be regarded as an original Greek work made by a sculptor in the school of Praxiteles.

A marble statue of a young child, of which only the lower legs and the left arm are missing, was found in a well of the Kolonos, in a deposit of the third century A.D. The eyes in the chubby face are closed and the child is evidently sleeping (Fig. 11). A broad fillet binds the hair, passing across the upper part of the forehead, and a double lock extends across the top of the head from front to back; the short curls are finished with coarse drill holes in the spiral ends. The right arm is folded across the chest with the hand resting on the left shoulder, to which the head is inclined; the left arm was extended along the left side of the body, to which it was attached in two places. The technique in general is fair, especially in the modelling of the back. It may be rated as a good Roman copy of a work of the early fourth century B.C. Although wings are not attached to the back the figure may be safely identified as the Sleeping Eros, of which many replicas of Roman date point to a famous prototype.

A small marble statue of a woman was found imbedded in lime, beneath the floor of a Roman house near the Tholos destroyed in the early fifth century A.D. The head, both forearms, and the legs below the knees are missing (Fig. 12). The woman wears a sleeved chiton, above which is a peplos pulled up over the belt, forming a large kolpos and leaving the legs free below the knees. A panther's skin, with a leg hanging down in front and behind, and with the head caught in the belt at the waist, is wrapped about the body. This is evidently a representation of Artemis. The work is carelessly done and the statue is an uninspired Roman copy of some Greek original.

As in previous years, numerous statuettes of the Mother of the Gods were found this season. The great number of these figures scattered in all parts of the area indicates the wide popularity of this cult in Athens. The figures are similar in their general type, but differ in minor details. The main differences are the presence or absence of a shrine in which the goddess is seated, and the position of her attendant lion, either at her side or on her lap. All the statuettes date from the Roman period, but it is uncertain whether all are derived from a single prototype, the cult statue by Pheidias (or Agorakritos) in the Metroon. We know that Pheidias placed the lion by the side of the goddess, so it is probable that the type with the small lion lying on her lap had a different source. One well preserved example has been selected to illustrate



FIG. 11. — SCULPTURE OF A FEMALE FIGURE.



FIG. 10. — SCULPTURE OF A FEMALE HEAD.

the group (Fig. 13). The goddess is seated on a throne, in a shrine with a gabled roof. The figure is of the usual type, with a polos on the head and with a long curl hanging down on either shoulder. She holds a patera in her right hand and a large tympanum in the left. A small lion lies on her lap. A less usual feature of this particular example is the presence of a man and a woman of diminutive size standing beside the throne. These figures undoubtedly represent the persons who dedicated this offering to the goddess.

The notable collection of Roman portraits in the Agora has been enriched by several interesting specimens, one of which presents a realistic study of a man with a



FIG. 12. - STATUE OF ARTEMIS



FIG. 13. - STATUETTE OF THE MOTHER OF THE GODS

round face, fat cheeks, and rather stupid expression (Fig. 14). The locks of hair are in disorderly arrangement, but the beard and moustache are neatly and closely trimmed. Noticeable is the lentoid shape of the pupil of the eye, with a small triangular wedge on its upper side. The head may be dated about the time of the Emperor Gallienus (253-268 A.D.), some of whose portraits it slightly resembles.

Another head also presents a striking portrait of an individual (Fig. 15). The young man, with his disarrayed locks of hair, with side whiskers and closely-clipped moustache, with shaggy eyebrows and expressive eyes, must have been one of the leaders of the fashionable youth of his time, probably about the middle of the third century after Christ.

It is inevitable that most of the works of sculpture found in the Agora should be products of the Roman period, but occasionally the surprising discovery is made of

FIG. 15.—MARBLE PORTRAIT HEAD



FIG. 14.—PORTRAIT OF THE ROMAN PERIOD



injured relics of an earlier age, that have survived the sack of Sulla and other destructive civic disturbances.

The total number of terracotta lamps in the Agora collection now exceeds three thousand. The additions of the present season include specimens of all periods, with some unusual plastic types in the Roman group. One of these is in the form of a woman, who is clad in a closely wrapped garment resembling the windings of a mummy cloth (Fig. 16). She wears a headdress in the form of a stylized lotus and may have been designed as a crude representation of Isis. The body of the figure is hollow and served as a bowl for oil, which was poured through a filling hole in the centre of the body. The nozzle extends below the feet, so that the lamp could be used only with the figure in a supine position. Each foot has six toes, but whether this peculiarity has some recondite significance or is merely accidental cannot be determined.

Another plastic lamp has the shape of a boar crouching on the top of a conventional type of lamp (Fig. 17). A small post, extending above the boar's back, is pierced with a hole for suspension.

Among the terracotta figurines is one, presumably representing Demeter, which came from a deposit with contents dating from the fourth to the second century B.C. The goddess is seated on a throne with a high back (Fig. 18). She wears the customary polos on her head and holds a patera in her right hand. The unusual attribute of this figure, however, is the object on her lap, which seems quite certainly to be the *mystica vannus Iacchi* (Vergil, *Georg.* I, 166), the sacred winnowing basket often associated with her cult.

Each campaign produces many miscellaneous objects of greater or less importance, but very few can be mentioned in this brief report. An ivory forearm from a statuette (Fig. 19) is of special interest because of the context in which it was found. It was found deep in a well, with a closed deposit of the Hellenistic period, containing nothing later than the third century B.C. It is finished in the same exquisite technique as the statuette of Apollo Lykeios found last season, and it, too, was made to be attached to a figure, as is proved by the dowel hole at its end. The fixed date, before which it must have been made, is strong confirmation of the view that the Apollo statuette was also a product of the Greek period.

The collection of ostraka is steadily increasing and with the sixty additions of the present campaign has reached a total of 247. Themistokles still heads the list with 83, then comes Aristeides with 41, followed by Kallixenos (31) and Hippokrates (30). It is a striking coincidence that of the four names in the collection with the highest number of votes, two, Hippokrates and Kallixenos, are not otherwise known from any historical reference. A particularly interesting new ostrakon is one with the name of Alcibiades, son of Kleinias (Fig. 20). The shapes of the letters are similar to those on the early ostraka, and the only letter of distinctive shape preserved, sigma, has the early three-barred form. This ballot, therefore, must be referred to the time of the ostracism of the elder Alcibiades. Although this ostracism is reported both by Lysias (XIV, 39) and pseudo-Andocides (IV, 34), this is the first ballot against Alcibiades that has so far been found.

A set of three official bronze weights was found in a well deposit of the late sixth



FIG. 16.—PLASTIC TERRACOTTA LAMP



FIG. 18.—TERRACOTTA FIGURE OF DEMETER



FIG. 17.—PLASTIC LAMP IN THE SHAPE OF A BOAR



FIG. 19.—IVORY ARM FROM A STATUETTE

and early fifth century B.C. (Fig. 21). They are in good condition and all are designated as official weights of the State by the words DEMOSION ATHENAION, incised on their sides. The largest unit has an astragal on its top surface and the word STATER indicating its weight, which actually is 810 grammes. The second in size has a Boeotian shield on the top and is marked a quarter, TETARTE; its weight is 199.5 gr. The third and smallest, weighing 127.5 gr., has a tortoise on the top and the word HEMITRITO, one-sixth. These weights have not suffered any serious loss from deterioration of the metal, but, even with due allowance made for varying degrees of corrosion, the difference in scale is too great between the sixth and the stater. Similar lack of conformity to a fixed standard is noticeable also in the case of the more common lead weights and seems to indicate a disregard of exactness in the public records.

Coins continue to accumulate in the usual large numbers and in cleaning, identifying and cataloguing the 10,325 coins found during the season, several pieces of unusual interest were noted. The earliest coin is a silver obol, struck in the time of Solon (594-590 B.C.), which bears the device of an amphora of early Attic shape on the obverse and a deep incuse square on the reverse. Another coin associated with Athenian history is a gold Persian daric of the early type, presumably lost by one of the invaders of 480 B.C. A unique bronze coin is a small fractional unit of the Imperial period, of which the obverse and reverse types are characteristically Athenian, but which is stamped with the name of the city of Megara instead of that of Athens. Another unique coin is also one of an Imperial Athenian issue. It is the type which



FIG. 20.—OSTRAKON OF ALCIBIADES

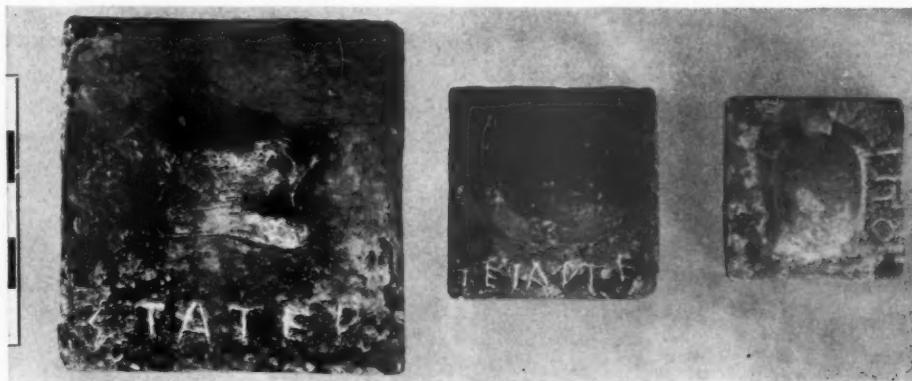


FIG. 21.—OFFICIAL BRONZE WEIGHTS

has on the reverse the Agonistic Table, across the top of which are written the names of some agonistic festivals. The name Eleusineia occurs for the first time on the new coin. About half of the total of 70,000 coins from the Agora have now been cleaned, identified, studied and catalogued.

The discoveries in the field of epigraphy have been as numerous and as important as usual. Additional pieces have been secured of the Attic Tribute Lists of the fifth century, several of which are of first rate importance. Improvements have again been made in the constitution of the Athenian calendar, for some dates of archons have been corrected and the name of at least one archon, who was not previously known, has been secured. Names of men famous in Athenian history are included in the prosopographical roster of the year. A didascalic record lists Sophokles as tragic poet and Herakleides as actor in 448-7, and in 436-5 Iophon, son of Sophokles, as tragic poet and Hermippus as comic poet. Many new pieces were found of the stele containing the auction list of the sale of the confiscated property of Alcibiades and the other mutilators of the Herms. One of these gives the names of two of the condemned men, Polystratos and Nikiades, both of whom were indicted for profanation of the Mysteries. Besides the historical personages, many Attic names, not previously recorded, have been secured from the documents. The inscriptions, now numbering about 5000, are being handled, studied and promptly published in *Hesperia* by Meritt and his associates.

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MURAL PAINTINGS IN SOME CAVE CHAPELS OF SOUTHERN ITALY

PLATES I-IX

A RICH series of frescoes in Puglia, which form the only decoration of the humble monastic chapels scattered in the country and hidden in the rocky sides of the deep "ravine," has for some time attracted the attention of students. They have been the subject of articles¹ — if not of complete works — so that I shall speak of them briefly here.²

These monuments, which can be grouped only under the name of cave chapels, notwithstanding the variety of their plans and appearance, are very numerous in Puglia, and are preserved in good and bad condition. I have been able to collect direct information on 17 cave chapels in the province of Bari, 18 in the one of Brindisi, 38 in the one of Lecce and 61 in the one of Taranto. They may be cut in the rock, in the side of steep ravines, like those in the region of Taranto or those near Brindisi, or they may be dug into the ground, just like wells, as most of the examples in Terra d'Otranto.

In the case of the first type, the monks have very often used natural caves, where troglodyte habitations once existed. It is probable that they found, as Bertaux has remarked: "les ravins de la Basilicate et les falaises de la Terre de Bari déjà criblés de cellules, comme les rochers de la Cappadoce." They simply took over a local custom. Usually the internal architectural arrangement, except when the cave has preserved its primitive natural shape, is the same, with some variety in details. One of the most usual types has a unique rectangular space, with only one niche or apse, and walls entirely covered by frescoes. Another more elaborate form has three naves, three niches or apses, and several pillars, all cut in the tufa. In some cases (S. Maria in Poggiardo, S. Simine and S. Leonardo in Massafra, Le Petrose near Taranto, etc.), remains of the iconostasis are to be found, sometimes with the three traditional openings more or less regularly cut in the stone. Usually the ceiling is flat, but in certain cases it is worked into lenticular cupolas (Candelora in Massafra). In Giurdignano, a hamlet near Otranto, the subterranean chapel of S. Salvatore, a complete chapel of the Greek rite with iconostasis, diaconicon and prothesis, in perfect condition, has three barrel vaults above the three naves and three lenticular cupolas above the sanctuary. The plan of another small chapel — S. Daria in Oria — calls to mind the one of San Marco in Venice.³

Two so-called cave chapels must be considered apart. One of them, S. Annunziata in Erchie (Brindisi), is placed in a natural cave, the entrance of which is protected

¹ B. Molajoli, "La Cripta di Poggiardo," p. 10, "La Cripta di S. Croce in Andria," p. 25, *Atti e Memorie della Società Magna Grecia Bizantina e Medioevale* i, 1934; M. Luceri, "La Cripta di S. Maria in Poggiardo," *Iapigia* iv, 1933.

² For more detailed information see: *Bulletin de l'Institut Archéologique Bulgare* x, 1936: *Actes du IV Congrès international des études byzantines*, Sofia, Septembre 1934, A. Medea, *Corpus des fresques peintes dans les cryptes des Pouilles*, ii, p. 242.

³ See Bertaux, *L'Art dans l'Italie Méridionale*, Paris, 1904, I, p. 135, p. 151.

by a construction of big blocks of stone, surely not of Byzantine date. The second is not a cave chapel in the real sense of the word, but a curious monument of Messapian character, of still unascertained date, which has been used as a chapel. The fine and interesting frescoes which decorated it have now disappeared.

Such is the architecture of these chapels, which was determined by purely practical considerations. The mural paintings, the chief interest of this article, are not true frescoes, but more precisely "dry frescoes," painted on layers of thick mud spread over the rough walls. They can be grouped according to the epoch in which they were presumably painted or the inscriptions accompanying them, which may be in Greek, Latin or a mixture of both. Frescoes of the XIth and XIIth c. are rather rare and often in the same cave there are paintings of different dates, from the XIth to the XIVth c., only occasionally of the XVth c. It is always extremely difficult to date them even approximately. The rough walls of the caves have been covered over and over with frescoes and often enough the humble worshippers, coming century after century to venerate these sacred spots, have painted the image of their dearest saint over a former painting. The penetration of one style in these regions, giving to similar subjects the same character throughout centuries, is another serious obstacle to an exact dating of the frescoes.

I cannot attempt to give, in an article, even a short description of the principal cave chapels of Puglia and shall limit my discussion to those cave chapels which are not commonly known and which have only recently come to light or which have attracted attention, after long days of oblivion.

The cave chapel of S. Croce in Andria (Fig. 1), in the province of Bari, had been studied only hastily in the course of works of more general interest. A few years ago Prof. Molajoli gave a complete description of it in the "Atti of the Società Magna Grecia Bizantina,"¹ which had coöperated with the Art Direction of Bari to restore the chapel. The chapel is cut from the tufa and includes a kind of atrium and a chapel or church of three naves, divided by pillars, cut, as the rest, into the tufa rock. From the atrium to the end of the choir the distance is 19.85 m.; formerly the chapel was much shorter. The central nave must at one time have had three bays, like the lateral ones, and must have been closed with an apse, destroyed probably in recent times. This quite simple and comprehensive architecture cannot help us in establishing even an approximate date for this monument, although it must in some way be connected with basilican tradition, of which it might represent one of the most advanced stages of diffusion toward the North. The paintings which decorate the interior, although interesting for various reasons, all reveal characteristics of later periods.

The frescoes can be assembled in various groups, according to their different styles and peculiarities. To one of these groups belong scenes which refer to the history of the discovery of the Holy Cross: they are ingeniously animated by a lively narrative spirit and we can date them in the XVth c. Together with these may be considered other scenes, painted on the arch between the central and the left nave, representing the Creation of Eve and the Original Sin. These scenes, although of the same style as those mentioned above, are much more interesting, because the

¹ B. Molajoli, *op. cit.*

clear and luminous coloring (although the coating has unluckily fallen in some places, creating most unpleasant interruptions) is preserved in all its intense liveliness, and because the iconography of one of them is quite unusual (Pl. I). In the Creation of Eve, the Holy Trinity appears in the form of a human being, wearing a white cloak and sitting on a golden throne, but with three heads on one neck: the head of the Father with a white beard, the one of the Son with a dark beard, and, finally, the Holy Spirit in the form of a dove.¹

Another fresco, representing Christ between the Apostles, Peter and Paul, be-

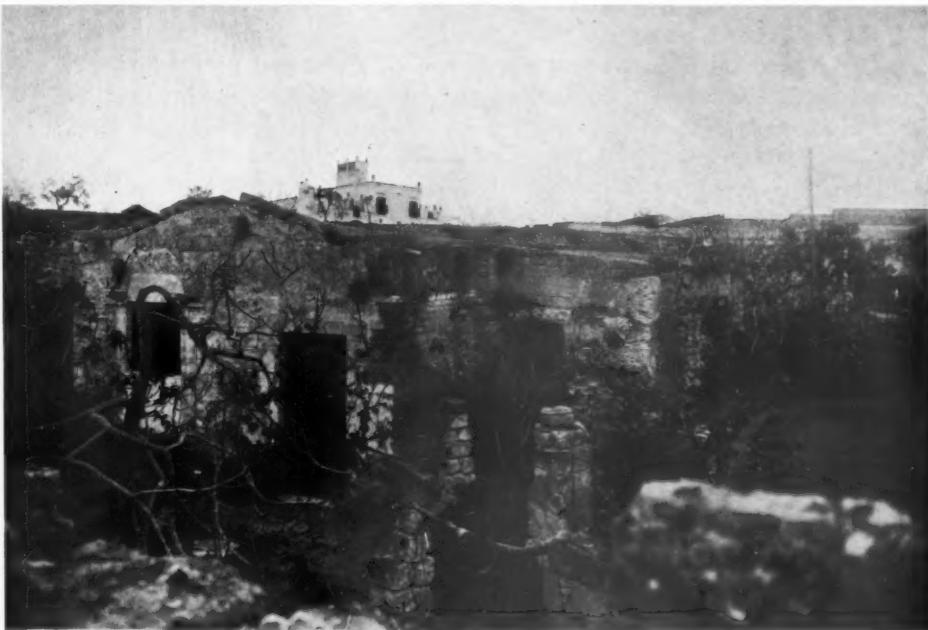


FIG. 1.—CAVE CHAPEL OF S. CROCE IN ANDRIA (BARI)

longs to an earlier period and to another group. It decorates the apse of the left nave. One can detect—although the subject is quite Latin—a Byzantine model for it, especially in the very tall and extremely thin figures of the two saints; also Christ gives the benediction according to the Greek rite. This fresco is probably the most ancient in the entire cave and can be dated from the XIVth c. Other Byzantine influences can be detected in the figure of a holy monk, perhaps S. Basil, and of Christ, painted beneath the scenes just described, and in the well-known one of a monk, probably S. Leonard, painted on a pillar (one of the few frescoes of cave chapels from Southern Italy which has had the honor to appear in general works on Southern Italian art, in travellers' descriptions, etc.). A St. Dorothea nearby, although it may be considered of the same epoch (XVth c.), reveals instead a quite different and much more advanced style.

¹ Didron, *Iconographie chrétienne, Histoire de Dieu*, Paris, 1843, p. 567; on p. 590 he speaks of a similar representation of 1520 in Amiens, where "la colombe se colle à la tête de droite."

This chapel, with its pillars and capitals cut in the tufa, its frescoes decorating the walls, apses, arches and pillars, is a faithful reproduction of the great monuments which are to be seen in towns, and a true basilican church, lost in the Pugliese countryside. Since such discoveries are rare, it has attracted much attention.

Still in the province of Bari in Gravina—one of the most picturesque villages of the region, built in the midst of the most incredible scenery, with rugged ravines and deep ugly valleys of chalky white tufa—is the cave of S. Vito Vecchio, or of the Eternal Father, or of the Savior—such and so many are the names of such a small monument. It had been quite forgotten and ignored up to 1927, when it was accidentally rediscovered. It is a subterranean cave in the form of a chapel, with only one apse, dug in the ground. One enters from the side of the apse, where part of the vault has collapsed. It is 3.50 m. high, 8.30 m. long and 4 m. wide. The apse is decorated with a large fresco representing Christ seated on a rich throne and surrounded by a halo, supported by four angels. The face of Christ is sad and solemn (Pl. II). He has a dark beard, a long moustache, curled hair, deep-set eyes, protruding forehead; the outlines of the figure have been hastily drawn in ochre and set off with white and green touches. The head of Christ can be compared, for its noble severity and its iconography, to the famous Sicilian mosaics of Monreale, or, still better, to the frescoes in the cave chapel of St. Lawrence in Fasano, with which it is closely connected. Finally, the representation in its general lines recalls a late fresco in the small church of the Cattolica in Stilo (Calabria),¹ which gives rise to the problem of the Oriental or Benedictine origin of this particular type.

The walls of the small chapel are completely covered with frescoes, which have a peculiar character of unity, expressed by an identical background, representing a brick wall on which small niches with columns and gilt capitals are used as a framing for the images of several saints, some of which give the benediction in the manner of the Greek rite. On the left wall (looking from the apse), there is a most interesting painting. It shows the three Marys approaching the Sepulchre of Christ, a small building covered by a curious cupola of quite Oriental character. The holy women turn vivaciously one to the other with quick movements of their hands, as if speaking and astonishedly questioning. The coloring is very lively, the cheek bones are marked out clearly in red. Inscriptions are in Latin. We shall return to this fresco to consider it from an iconographical point of view. For the moment I want only to point out the new liveliness and the effort towards movement and animation which it reveals, setting it apart from the remaining frescoes of the cave, which are much more static and rigid.

The cave chapel of Gravina is one in which the frescoes offer a harmonious decoration and are probably all of the same epoch. They are very bright in coloring, are painted on a single layer of plaster and a very thin one, leading us to believe they were all painted at the same time. Those of the apse, the Saints and the Virgin of the walls, are surely due to one and the same hand. The visit to the Sepulchre of Christ appears to me, on the other hand, much rougher in design and of a quite different liveliness. They can thus be dated probably from the XIIIth or partly from the XIVth c.

¹ See P. Orsi, *Le Chiese basiliane della Calabria*, Vallecchi, Firenze 1929, p. 32, fig. 21 and p. 40, n. 22.

In the surroundings of Taranto two abandoned cave chapels, quite unknown before, have been discovered in the last few years. One of these, near a farmhouse called "Le Petrose," still preserves, cut into the rocky ground, a wall with three openings, dividing the sanctuary from the remaining part of the chapel, which we may consider a real iconostasis. In it are also the remains of some badly damaged frescoes (a fine archangel among others). At some distance in the open country is another cave chapel, the one of S. Onofrio. Two arches, cut out in the rock, divide it. Other caves may be seen all around. Probably there was a laura here and the painted chapel was its oratorium. Some of the frescoes can still be seen. Here, as in Gravina (S. Salvatore), the background, dark blue, is unique. Only miserable remains allow us to identify the typical figure of S. Onofrio, thin, pale, and with a long beard. The outlines are usually in ochre, the coloring still vivid (reds, blues, etc.).

Far more interesting and of much greater importance is the cave chapel of St. Nicholas in Faggiano (Taranto), recently restored by the local Art Direction. It was quite accidentally discovered during the building of a new house. It is, as usual, of a very irregular plan. Its diameter is about 9 m. The ceiling has a very low vault, and, together with the pillars, has been cut from the rock. The cave chapel is 4 m. high.

Several frescoes decorate the interior. A very fine St. Theodore, with a Greek inscription, is especially interesting, owing to its style of painting (Pl. III). The saint sits on a horse, which lowers its head and sets its feet on the dragon; on the right, also accompanied by a Greek inscription (XIIIIIP KY), appears the hand of the Lord. The saint is dressed in armor, his cloak spreads out behind him, blown by the wind. He holds the reins in one hand. His head, somewhat long, austere, with deep shading, is crowned by a very large nimbus. Underneath, one can distinguish an earlier painting. Next to St. Theodore is the painting of another saint (most probably St. Vincent, the archdeacon, if one can judge from his costume and the attribute of ravens, clearly visible on his stole), dressed in a black dalmatic, decorated with white and red dots, assembled to form flowers and richly embroidered in dark brown and red round the sleeves and at the neck. Further on, the decoration of a niche—unhappily very badly preserved—interests us especially from an iconographical point of view. We can still see in it St. John the Baptist, dressed in a mantle tied on his breast, stretching his long thin arm to touch lightly, with the tip of his fingers, the head of Christ. On one of the pillars is the painting of a youthful St. George (Pl. IV) on horseback, dressed in a costume recalling the one of St. Theodore, but whose attitude appears much more animated, while the modelling seems more delicate and the expression one of peculiar sweetness. Next to it is a St. Stephen, whose head is unluckily partially missing, painted on a background of three colors, above a pattern of foliage in red and black, decorating the low part of the pillar. He wears a white dalmatic, with small red designs, rich with embroidery; he holds a book decorated by a cross in his left hand and in his right a censer. What remains of the face, the chin and small mouth, is very delicately modelled. Although these figures, so graceful and lively, with their round faces, their blended modelling and clear coloring, seem to differ from those of St. Theodore and St. Vincent with their long dark faces, they all have some peculiarities in common: the subtle rendering of details and rich ornament, the variety of vivid colors. They remind us of miniatures

and of that special technique applied to mural painting in Southern Italy, which was derived from miniatures. From miniatures the delicacy and vivid coloring were taken over. This manner of painting is rightly contrasted by Bertaux with another much more comprehensive method, resembling a large sketch and practically monochrome, which calls to mind the frescoes in the vestibule of St. Sophia in Kiev and which belongs to some frescoes in the cave chapels in Puglia. Examples are those in S. Lorenzo at Fasano. These two contrasting systems continued throughout the XIIIth c. and the cave chapel of Faggiano gives good evidence, it seems to me, of the first system. We can date the frescoes in question from the XIIIth c., probably the early XIIIth c.

Passing to the province of Lecce, we find the cave chapel which may be said to be the most interesting of the recently discovered examples. It is called S. Maria and is in the village of Poggiardo; Miss Robinson, my companion on our first visit to the site, thus refers to the chapel in an article in the *Journal of Hellenic Studies*¹: "We know that there was an important monastic centre here, because in the *Typikon* of St. Nicolas of Casola it is mentioned that books were lent from the great and famous library of St. Nicolas to the monks of Poggiardo. But until quite lately nothing was known of it. A few months ago the municipality began to lay new drains; and in cutting down into one of the main streets they came upon a hole, evidently cut in the rocks. Further digging disclosed that this rocky cavity had pillars and arches and that on the walls were traces of colour. The traces of colour turned out to be fine Byzantine frescoes and the hole a three-apse chapel of the Greek rite, with the remains of iconostasis and altars. We found it all dug out, but full of filth." The monument has since been duly restored. It was by no means easy work, for the vault had to be solid enough to bear the traffic of one of the main streets and at the same time to provide sufficient light for the frescoes to be seen. All this has been made possible through the building of a special ceiling with a peculiar kind of thick glass. So the small chapel, covered with frescoes, which Prof. Brizi has restored with wonderful skill, has once more taken on its primitive appearance, thanks to the untiring efforts of the deceased Prof. Quagliati, at that time Director of Arts in Puglia, and with the financial help of the Art Direction, in coöperation with the Società Magna Grecia Bizantina.

The chapel has, as usual, a very irregular plan, which follows the irregularity of the ground into which it has been dug. It is arranged in three naves by means of four pillars, which support a flat vault; its length is about 9 m., its height 2.10 m. Of the pillars, only two are still extant. The naves end with apses in the shape of niches: fragments of tufa, still joined to the pillars, are most probably all that remains of the ancient iconostasis, which must have been about 1.45 m. high. One entered the cave from the northwest, but this side of the monument has been altered in later times. Today one enters from the east, by means of an iron staircase. It is interesting to consider that the axis of the naves is not perpendicular to the transept, the naves being therefore curiously oblique.

The very rich painted decoration, which covers walls, apses and pillars, furnishes the chief interest of the chapel. The frescoes appear on a background of different

¹ G. Robinson, "Some Cave Chapels of Southern Italy," *J.H.S.* I, 1930, pp. 207-208.

colored horizontal bands. Although partly damaged, they are on the whole nearly complete and so harmonious that we may gain some idea of the chapel in its primitive state. On the walls a long row of images of saints is painted, richly dressed and with details accurately rendered. In the central apse sits the Madonna, enthroned, with the Child on her lap (Pl. V), between the archangels Michael and Gabriel. The archangel Michael appears again in the left apse in all his glory (Pl. VI), wearing the omophorion, with the attributes of his power: the red lance decorated with precious stones, and the globe, bearing a cross and the inscription ^{M TP} ΑΥΤ. No added layers of painting are to be found in this chapel. Luckily it has not been subjected to that constant transformation, continued through centuries, which makes the decoration of similar monuments of the region so irregular. It is probable that these representations, so intimately connected with each other, are from the same period and by the same artists—except for a small group, which must be later, and which are of a quite different quality. The long row of figures includes in the middle Christ, sitting on a throne, with the book of the Gospel and the inscription:

E//Ω//IM=ITO=ΦOC=T///=MOY on the first page, and:
ΑΚΟΛΟΥ=ΘΟC ΜΙΟΥ=ΜΗ// // ΦΗ=¹

He is giving the Greek blessing. At His feet is a small figure of the Magdalen, rather unusual at this time. Other figures are those of St. Anastasius, St. Nicholas, and St. George on horseback. All wear extremely rich garments, which recall those more common to Byzantine tradition. Everywhere may be seen decoration of pearls, of precious stones, small white dots placed in circles or in squares, always very delicately painted; the archangels (another appears in full figure in addition to the one of the apse) wear the imperial costume, like those of Torcello. Garments, thrones, nimbus, everything is spangled, decorated, embroidered with white drops or dots and the colors shine out vivid and varied, with delicate shades, outlined with ochre or sometimes reddish lines. We again come back to miniatures for a comparison, as at Faggiano, but this time to an earlier period. Mr. Molajoli very appropriately recalls well-known Byzantine codices like the Homilies of St. Gregory, of John Chrysostomos, of the monk James (Bibl. Nat. Paris), the Psalter of the Marcian Library of Venice or the Barberini of the Vatican. A date between the second half of the XIth c. and the first half of the XIIth is probable.

Much less interesting is a small group of later frescoes. The cave chapel of Poggiardo offers us the rare specimen of a complete and harmonious decoration in frescoes which preserve several peculiarities connected with one of the best periods of Byzantine art, of which they are a provincial imitation. These peculiarities can be pointed out only briefly. They are the way of representing shadows in a very free manner and with none of the more usual conventions, the delicate modelling of the faces, the variety of types and faces of saints, so typical of the Byzantine renaissance. Thus we find in these frescoes a new field for the study of the problem of the diffusion of Byzantine art in Southern Italy. Finally, it should be observed that several caves are to be seen in the cellars of the houses around S. Maria in Poggiardo. This means that a laura probably existed there.

¹ Ε(Γ)Ω (Ε)ΙΜΙ ΤΟ ΦΩC Τ(OY KOCM)ΟY, etc. See John VIII, 12.

Last of all, I wish to mention another cave chapel, the one of the Crucifix in Ugento, which is still in use and which preserves some frescoes that have not been whitewashed, as most have. One of them represents an Annunciation, with the Virgin weaving the purple and holding the distaff in her hand, according to the tradition of the apocryphal Gospels. The angel appears at the rear of a kind of partition, his veil flying gracefully over the background. Another Virgin with the Child sits on a richly decorated throne on the wall facing the entrance. The way in which she holds the Child on her knees, leaning her cheek against His, somewhat like the traditional *glykophilousa*, is full of tenderness, and she has an expression of great sweetness. These frescoes may be considered to belong to the XIVth c. Another group of unknown cave chapels is to be seen near Laterza (Taranto), but the frescoes are of less interest.

Quite recently—in 1936—a cave chapel was discovered near Taranto. It is called S. Chiara and still preserves the iconostasis and rather fine remains of frescoes: a St. Nicholas and an archangel among them, and an inscription. Prof. Bartoccini, Art Director in Bari, spoke of these at the last International Congress of Byzantine Studies in Rome, in September, 1936.

As a whole, the frescoes of the cave chapels of Puglia offer great variety from the point of view of style. We have first of all paintings such as the solemn and serene Christ of the subterranean chapel in Carpignano (Lecce) (Pl. VII), dated—according to a long inscription accompanying it—in 959 and painted by the painter Theophilaktos, for the salvation of the souls of the priest Leo and his wife and sons. This painting seems somehow connected with specimens of East Christian art, such as the mosaics of St. Luke in Phocis. The figures of the Annunciation next to it have the same character, which reveals, in the vivid lights and in the way of folding the garments, strong provincial influences. It is a most important monument and the fixed point to which one must always come for dating other paintings, because it gives us a certain date. There follow the frescoes of the XIIth c., which copy their style from the most noble specimens of a rich tradition: those of the SS. Hermits in Palagianello, of St. Stephen in Vaste, of S. Maria in Poggiardo, of St. John in S. Vito dei Normanni and others still. In the end we come to crude local paintings, issuing from late provincial schools, although they preserve at times the iconographical Byzantine type. A good specimen of this kind of painting is found in the group of frescoes in the chapel of the Favana at Veglie. But the difference of style is not always, as in the cases mentioned above, due to difference of date. We can sometimes notice in the same century the contemporary existence of two different methods.

First of all, it is easy to see the great difference between paintings certainly dependent on Byzantine models, and others which have felt no such influence, although from the same period. The first are the work of artists who are perhaps modest, but not ignorant of traditions other than the local ones; the second of humble local craftsmen.

Let us look, for instance, at the beautiful archangel in the chapel of St. John at S. Vito dei Normanni. He appears on the rough wall of the poor cave in the solemn traditional attitude, with the globe in one hand, the lance in the other, wearing the rich and precious imperial costume. At his back wings open wide against the back-

ground. The pure oval, the dark shadow under the eyebrows, the shadows on the neck, recall to us, although we must admit an inferiority in style, the triumphant archangel of the narthex of S. Angelo in Formis. In the apse of the same chapel is a Deesis, which can be considered of the same epoch as the archangel (it is so considered by Bertaix among others), but its design is poor and crude, and it preserves only very distant memories indeed of the Byzantine tradition, which surely inspired the painter of the angel.

I have already spoken, when referring to the frescoes of Poggiardo, of two different series of frescoes, both to be found in the cave chapels of Puglia, one with vivid coloring and with great attention given to precious details; the other, in contrast, painted hastily on the walls and with very little variety of coloring and that always in sombre tones: ochre, dark brown, green. This contrast appears very clearly if we consider side by side two frescoes presenting a similar arrangement, if not exactly the same subject. One of them is the Deesis of the cave chapel in S. Lorenzo at Fasano. Christ, a tall, dark figure, bearded, with long hair falling down the cheeks, with long, large eyes, has an expression of strength and serenity; the figure of the Virgin is very dark and can scarcely be seen, but St. John in his dark mantle is quite clear. On the whole, the fresco appears monochrome and no emphasis seems to be given to the coloring of the garments, which are extremely dark. The figures which most attract our attention are the angels painted on either side of the niche and turning toward the Deesis. The one on the right is better preserved; he is dressed in a richly embroidered robe, with inlaid embroidered squares on the shoulders. Both of them wear the embroidered stole, according to the fashion of the imperial "loros." The heads lean toward the Deesis, they have the nimbus, and one can see their typical dark curls. These solemn figures seem to lend to the poor chapel something of the splendid grandeur of the angels standing majestically on either side of the Last Judgment scene in Torcello.

Let us now compare these frescoes to less distant specimens: to the angels painted on either side of the Madonna in the central apse of S. Maria in Poggiardo (Pl. V). They appear infinitely more splendid in the rich coloring of their garments, changing from red to gray, although they do not wear, like those of Fasano, the imperial costume. In Fasano the widespread wings are painted with quick touches indicating each single feather; in Poggiardo they are instead neatly drawn with only one curved line showing the outline of the wing and are somewhat flat and linear. Also in Poggiardo, folds on mantles and garments in general are but slightly indicated. The richly embroidered materials fall rigidly; only here and there a light shadow, a quickly traced line, show the folds; in Fasano, on the other hand, heavy, dark streaks mark them out on the garments of the angels. These paintings of Fasano are thus typical in their vast proportions, their absence of bright colors, their ample, wide design, their solemn, serene nobility, of a group of paintings.

If we wish to detect, for these frescoes also—as we did for their more vivid companions of Poggiardo or Faggiano—Byzantine influence, coming down to them through miniatures, we must turn to those special miniatures which Bertaix describes as follows: "Le coloris est sobre et léger, étendu par teintes plates, tous les tons sont neutres: vert olive, violet brun, ocre jaune; aucune retouche vive,

aucun rehaut d'or ne fait dissonance. C'est la gamme assourdie des peintures murales du XI siècle conservées à S. Sophie de Kiev."¹

As for the iconography of our frescoes, the following may be said. First of all—and more often in the region of Taranto and Brindisi—comes the Deesis, usually painted in the central apse, or, when there is no apse, in the central part of the chapel. The representation of this subject, generally from an earlier period, is, however, continually repeated, so that we can find quite late examples of it, e.g., in the chapel of the Madonna della Nova near Ostuni. Thus we have evidence of the existence in these regions of a strong tradition, continually repeating models taken from Byzantine painting, even though they become vulgarized by crude popular reproduction.

Next in frequency comes the representation of Christ as Pantokrator—who appears at the center of the ceiling in the cave of S. Biagio at S. Vito dei Normanni; or in glory, with the symbols of the four Evangelists, in a halo supported by angels—as in Veglie and Gravina; or, finally, sitting enthroned, with the opened book of the Gospel resting on His knee, where one can read the usual inscription: "I am the Light of the World" (John VIII, 12), very often in Greek. A good instance is the Christ of Poggiardo.

Very common is the representation of the Holy Virgin, to be found in almost every one of the chapels I have visited. It is often repeated several times in the same chapel and it is the only constant figure in those monuments which have been totally transformed in the course of centuries.

The archangel Michael, with his name often in Greek letters beside him or without the name, is also a very common representation and one to which the painters of this region seem very attached. He generally wears the imperial costume and holds in his hand a globe.

The saints most often represented are: St. Basil, SS. Cosmas and Damian, St. George, St. John the Baptist (sometimes represented alone and not always connected with the Deesis), St. Lawrence, St. Margaret, St. Nicholas, St. Peter, St. Stephen, and sometimes SS. Anthony and Benedict.

Finally, a group of scenes from the Gospel, comprehending: the Annunciation, the Nativity, the Adoration of the Magi, the Flight into Egypt, the Baptism, the Entrance into Jerusalem, the Last Supper, the Deposition, the Visit to the Sepulchre. The most complete series—where the last three scenes and the Baptism are missing—is to be found in the cave of S. Biagio.

Of course all these representations, which form a kind of fixed "repertoire" of the painted decoration of Pugliese cave chapels, do not appear together in only one chapel, but appear irregularly in one or the other. It is not possible to discover any special connection between subjects and the various regions.

It is to be noted that these cave chapels are particularly poor in representations of scenes from the Gospel, the more so when we consider how rich in contrast are the cave chapels of Cappadocia. The narrative form must not have been familiar to the humble painters of these monastic chapels. They preferred to show long rows of saints, or solemn Christs and Virgins, looking from the apses and the niches. Some-

¹ E. Bertaux, *op. cit.*, I, p. 220.

times we find only one episode from the Gospel, such as the Presentation in the Candelora at Massafra, or the numerous Annunciations in several chapels. This particular episode is not to be considered one of the scenes of the holy narrative, but rather a representation of the Holy Virgin at a particular moment of her life, and it is the particular attitude in which she appears which gives the name to several chapels (e.g., the chapel of the Annunziata in Lizzano).

I cannot consider the distribution of different subjects in different regions, but only observe in passing that in the region of Bari we find the representation of the Deesis only once; in the region of Brindisi and Taranto, where we also have several representations of the archangel Michael, it occurs more frequently. In the province of Brindisi the greatest number of scenes from the Gospels appears, while about Taranto we generally meet only single scenes. In the Terra d'Otranto we very rarely find the Deesis; Christ appears among angels or archangels (Vaste); the archangel Michael is very often represented. In all the provinces the Holy Virgin appears.

Of all these representations only a few offer a particular iconographical interest. Let us consider first scenes from the Gospel. The one in Faggiano (Baptism) is badly damaged: we can see only that St. John is on the right, instead of the left, as is more usual. The only fairly complete group is the one of S. Biagio in S. Vito dei Normanni. In the scene of the Annunciation, the Virgin standing on the right, with the spindle and distaff in her left hand and her right at her breast, is painted according to a model of the XIth c., of very ancient origin, which unites the type of the Virgin weaving and of Mary in doubt, unwilling to accept the divine message. Medallions occur, curiously enough, with the Prophets David and Isaiah, which appear to emphasize the agreement between the Old and New Testaments, and a childish representation of the Holy Spirit in the Virgin's nimbus.

The most interesting fresco on the wall of S. Biagio is that of the Nativity. It is taken, most probably, from the apocryphal Gospel of St. James. Unfortunately, it is in a very poor state of preservation. It is associated with the episode of the Annunciation to the shepherds, with the arrival of the Magi, with the Bath of the Child. Our Lady is seated in an attitude of weariness, her head leaning on her left hand. St. Joseph sits in an attitude of dejection a little way off: he remains, as in archaic representations, at the left of the Virgin, while the bath in which the Child is sitting and giving the blessing, and the nurses, have been placed at the right. The arrival of the Magi with flying mantles at the moment of the Nativity is characteristic. In the apocryphal Syrian Gospel of the Childhood they have been warned of the great event and arrive in time to assist at it. This episode is missing in the archaic representations, and it has a certain importance here. The figures no longer, as in the XIth and XIIth c., stand quietly in adoration by the Holy Child, but we see instead a gay cavalcade, which becomes quite usual in the XIVth and XVth c.¹. The flute-player sitting at the top of the scene, above his two companions holding each other by the hand, has archaic connections. This graceful figure comes from Alexandrian pastoral landscapes and was introduced into Byzantine art for liturgical reasons. He sits in our fresco in a frontal position, as in archaic frescoes, but the

¹ See G. Millet, *Recherches sur l'iconographie de l'Evangile au XIV, XV et XVI siècle d'après les monuments de Mistra, de la Macédoine et du Mont Athos*, Paris, 1916, p. 136.

flute he plays and his position at the right bring us to a later model. The third of the Magi, Balthasar, is not represented full size, like the others, for there was apparently no room for him. The scene as a whole recalls Cappadocian frescoes. The Flight into Egypt (Pl. VIII) shows the Child on the shoulder of St. Joseph and the ass led by St. James the Less (his name can be read beside him), while an angel with a staff conducts the party. We can easily detect here the influence of the apocryphal Gospels, so common in Cappadocian frescoes.

The Entrance into Jerusalem, where Christ sits sideways on the donkey, according to the oriental manner, and not astride, and is received at the door of the town by bearded and veiled figures, as in Byzantine representations of the XIth and XIIth c., followed only by two disciples, probably St. Andreas and St. John, is faithful to traditional models. The effort to simplify reduces the number of the disciples, a detail common in Cappadocia, where, as in our case, there is a youthful apostle without a beard. This was found many centuries before in the Codex of Rossano.

Among the Gospel scenes of other chapels only one has especial importance. It is the Visit to the Sepulchre in the cave chapel of S. Salvatore in Gravina (Pl. IX). This subject, one of the most ancient in the iconography of the Gospel, appears here in its occidental form, a form which Byzantine painting adopted only in the XIVth c. We therefore see in this painting three women bearing myrrh and not two, according to the story as given by Mark, rather than that by Matthew. And from the Gospel of Mark (although slightly changed) are taken the words of the inscription: "Ecce locus ubi positus erat."¹ The group of Annunciations offers two very different types, which we may consider as two extremes: one, probably of the Xth c., at Carpignano, where the Virgin stands with spindle and distaff in her hand and listens to the beautiful angel with a very lively gesture of astonishment; the other at Ugento, supposed to be of the XIVth c., shows us a sweet, timid Virgin listening to the angelic messenger who appears beyond an enclosure.

The representation of the Trinity appears only three times in the cave chapels I have visited in Puglia. In Andria (S. Croce) it is represented in the Creation of Eve (Pl. I) by a white-clad figure with three heads. This representation can easily be connected with those which became quite usual during the period from the XIIth to the XVIth c., with the growing closeness of the three figures. In the XIIIth c., this tendency reduces the representation to one figure bearing three heads, as in our fresco. At last Urban VIII, in August, 1628, solemnly forbade the reproduction of such images, and the prohibition was repeated by Pope Benedict the XIVth. Usually the three heads, more or less intimately connected, are human, even when they are actually fastened together. Here, instead, one of them is represented by the symbolic dove; we may thus consider the fresco of Andria as a special type of the usual representation in which both the importance given to the fusion of the three Persons and the difference between them subsist.

The same subject appears in the later decoration of the chapel of Favana in Veglie, this time in connection with representations which became usual in the XIIIth c. Christ on the Cross with the dove standing on it, held by the Father, occurs here.

¹ See de Jerphanion, *La voix des monuments*, Paris, 1930, p. 231, n. 2.

In Fasano, in S. Procopio, the Trinity appears curiously mixed up with the subject of the Deesis.

A rather rare representation for the cave chapels seems to be the one of Christ between SS. Peter and Paul; it appears only twice (Crispiano, Andria); another time, in Mottola, He stands between St. Andrew and St. Basil. Finally, in Poggiodi, the Magdalen appears at the feet of the Lord, quite unusually, for she is generally to be seen only in monuments later than the XIIth c.

So much for the iconography of the frescoes. One must refrain from making hasty or definitive deductions and conclusions. We cannot be sure whether certain subjects are really missing, or have not instead been destroyed, on account of the poor preservation of most of the chapels.

These few specimens, chosen from many, throw light on a special period, when, through the activity of unknown and humble painters, the great art of Byzantium, though only in one of its provincial expressions, was brought to a distant region and developed in the wild isolation of the ravines, in the silent immensity of the open country. Italy is the only country where all the epochs of Byzantine art are represented by works of Byzantine artists or of local artists clearly under Byzantine influence.¹ The frescoes in the cave chapels of Puglia confirm this. To collect them and to observe some of their most important peculiarities is thus not an unrewarding task.

ALBA MEDEA

MILANO, ITALY

¹ P. Muratoff, *La pittura bizantina*, S.A., p. 20.

EXCAVATIONS AT GÖZLÜ KULE, TARSUS, 1937

THE excavations at the Hüyük of Gözlu Kule were resumed on March 23rd with a staff of five, exclusive of the Director, and ended on July 10th.¹ The support came, as in the previous campaigns, from Bryn Mawr College, the Fogg Museum of Harvard University and the Archaeological Institute of America. For the first part of the excavating season we had with us as representative of the Turkish Government, Bay Aptulla Agar, and later we welcomed back Bay R. Yalgin, Director of the Adana Museum, a friend and co-worker of the Tarsus excavations since their inception. To both I wish to express our thanks for their helpful coöperation. To the Ministry of Education and Dr. Hamit Zübeyr Koşay we owe this year a special debt of gratitude for permission to bring to America, for purposes of study, not only the numismatic material found in the excavations, but a large collection of coins from Tarsus and its neighborhood, now belonging to the Adana Museum.

Section A. Work in this section, located at the eastern end and on the highest point of the hill,² was begun by an intensive investigation of the technical methods of construction used in erecting the large building at the three-meter level. This was part of a general program of widening the existing trenches. In planning the work at Tarsus it seemed best to increase the excavated areas in successive campaigns rather than to lay them out at the beginning on a larger scale, because an opportunity was thus given of checking and rechecking the stratigraphic observations. At a site where the evidence has been so confused by levelling, by intrusive pits, and by deep Roman foundations, this is of especial importance.

We found that preparation for erecting the building had been made, first by a general levelling off and filling in, which accounts for the fragmentary walls of two lower strata, and then by laying out the ground plan in foundation trenches. These varied in depth, according as they supported the heavy outer or the narrower inner walls, from 1.80 m. to slightly over 1.00 m. and in width from 1.90 m. to slightly under a meter. Some of these trenches cut through stone walls. They were filled with alternate layers of hard reddish earth, differing both in color and consistency from that used in preparing the whole surface, and small river stones or pebbles with a slight admixture of broken limestone. The maximum number of

¹ Photography, cataloguing, and the miscellaneous jobs attendant upon winding up a prosperous season in the field kept three of us busy for another fortnight. Miss Cox was again, as in the 1936 campaign, in charge of a large section of the field work and did most of the drawing and making of plans. Mrs. Ann Hoskin Ehrich combined the direction of a trench with photography and also made the plans of her own field section. Mr. Robert Ehrich, as Assistant Field Director, has now taken complete charge of the accounts and the handling of labor, as well as of two sections of the field work. Miss Maynard Riggs, was secretary of the expedition, helped with the inventories, did much of the indoor photography and made drawings of our large collection of lamps, as well as of the graves found in Trenches Eight and Nine. In addition, much miscellaneous clerical work fell to her lot. Mr. Edgar Lindstrom, formerly of the Peabody Museum of Harvard University, acted as technician of the staff. His work in training the native menders in correct methods and his ingenuity in using the sometimes defective local material to the best advantage deserve the highest praise. As in previous years this report is based, in large part, on the field notes of the staff.

² See reports *A.J.A.* xxxix, 1935; xli, 1937.

pebble courses was fourteen and they had been laid with such care that, when originally found in isolated patches, they were taken for pavements. Figure 1 shows a vertical cutting through such a foundation trench.

A doorway, approximately two meters wide, lay in the southern wall and was approached by a paved roadway 1.60 m. wide. The doorway, together with the street drain of a somewhat later period, is shown in Figure 2. The drains in this area, where the slope of the hill concentrated the rapid flow of water, were frequently renewed. They were built for the most part entirely of stone, with flat slabs as base and cover and vertical slabs carefully chinked with smaller stones for the sides. The unusual preparations made for the construction of the three-meter building lend color to the idea that it was of great importance, and must have been either the palace or the temple of the town. The principle used in the laying of these foundations is the same



FIG. 1.—CUTTING IN SECTION A SHOWING FOUNDATION TRENCH OF BUILDING AT THREE-METER LEVEL



FIG. 2.—SECTION A. STREET WITH DRAIN AND DOORWAY OF THREE-METER LEVEL BUILDING

as that employed by the Romans when they bedded the walls of the temple at Troy on sand-filled trenches.¹ A less economic method of foundation was used at Khafaje, in the third millennium, where a huge pit was excavated to a depth of over eight meters and filled with sand for the support of the temple oval.²

Further shapes of the monochrome brown or drab pottery going with this and the two-meter level can now be illustrated. Figure 3 shows a very characteristic Hittite form, probably used for religious ceremonial.³ Rattles are not infrequent. Fig. 4 illustrates one from Section A and another from the "manger room" of Section B, where, among the animals and the fodder with its attendant rats, it may have served some apotropaic purpose partly magical, partly practical.⁴

Through more intensive study of stratification and pottery it has been possible to refine our preliminary classifications. The painted pottery in its latest phase, represented by the fragmentary walls under the three-meter level, makes occasional use of plastic bands and of polychromy in red and black. It has survived chiefly

¹ Dörpfeld, *Troja und Ilion*, I, p. 219, fig. 85.

² H. Frankfort, *Oriental Institute Communications*, No. 19, p. 32.

³ K. Bittel, *M.D.O.* No. 75, p. 21, fig. 10, b.

⁴ One thinks of the noise-making instruments used in agricultural rites, such as the sistrum of the Cretan "Harvester" Vase, Evans, *Palace of Minos*, II, p. 47, fig. 22.



FIG. 3.—SECTION A, LARGE JUG WITH POINTED BASE FROM 2.00 M.-3.00 M. LEVEL



FIG. 4A.—RATTLE FROM SECTION A

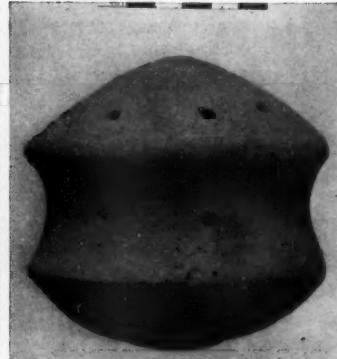


FIG. 4B.—RATTLE FROM MANGER ROOM, SECTION B



FIG. 5.—POLYCHROME PAINTED JUG



FIG. 7A.—UPPER PART OF JUG WITH SNUB-NOSED BEAK



FIG. 7.—RED BURNISHED JUG



FIG. 6.—HIGH-STEMMED GOBLET



FIG. 8.—JUGS WITH PAINTED DESIGN



FIG. 9.—HIGH-FOOTED JAR

in the form of sherds, but the jug of Figure 5 permitted of reconstruction.¹ High-stemmed goblets, sometimes with a plastic band between foot and bowl (Fig. 6), are also characteristic of this level. The surface is, as a rule, partially covered with a burnished red slip. Probably somewhat earlier in date are the beaked vessels of which the red-burnished narrow-necked jug with plastic knobs is one of our most complete examples (Fig. 7).² The typical Hittite snub-nosed beak has also been found at Tarsus, sometimes in the red-slipped burnished ware (Fig. 7, a), sometimes with simple linear painted design on a light ground. This represents again that combination of Central Anatolian shape with North Syrian ornament, characteristic of Tarsus; for of the fact that the painted ware, as I suggested in the 1935 Report,³ is related to that of North Syria there can, I think, be little doubt. With slight variations the jugs of Figure 8 are paralleled at Ras Shamra⁴ and more closely at Qatna.⁵ The Qatna jug has on the side of the pinched spout a linear "eye" ornament, which is very common at Tarsus.

In one of the strata partially destroyed by the levelling for the large building, bronze slag covered a considerable area and there were a number of shallow pits indicating that foundry work had been carried on here. At a depth of about 6.50 m., more of a very extensive building-complex came to light, part of which had been uncovered in 1936. Three rooms, parallel units with party walls, have now been completely excavated. Their long axis runs from north to south. Two of them have hearths and were, therefore, living units. The central one, which is somewhat narrower, may have been a corridor. Towards the south, the side walls of the rooms continue beyond the southern cross-wall up to a point where they are broken off, possibly because they were near the slope of the hill. We can, therefore, reconstruct each unit as having a long rectangular chamber, of which the largest measures 8.50 m. by 5.00 m., with a centrally placed hearth and a smaller adjoining chamber; in other words, although not an isolated structure it is a typical house of megaron type. A large storehouse, destroyed by a devastating fire, yielded varieties of grain and grape-seeds. The large jars, which once contained the provender, lay broken on the floor, together with a rich harvest of smaller painted vessels (Fig. 9), some of them of miniature size. This level, together with the one immediately below, undoubtedly marks the "floruit" of the painted wares. Here, too, decorated spindle whorls were found in abundance. Figure 10 illustrates the incised whorls of this and other levels. The designs are varied and carried out with a precision and neatness which does not always characterize the contemporary use of paint. While the floors of the living-rooms are fairly even, no attempt at levelling was made in the storerooms and the floors follow the natural slope of the ground toward both the south and the west.

At 7.50 m. we came upon the next important level and in between lay again fragmentary walls, belonging to building units partially destroyed by intentional

¹ The beaked shape of the spout is not hypothetical. An original piece exists on the side not photographed.

² The beak spout has been restored by analogy with similar jugs. Cf. Ras Shamra, *Syria* xvii, 1936, pl. XIX.

³ *Syria* xiii, 1932, p. 18, fig. 12; xiv, 1933, p. 98, fig. 3, 5.

⁴ *A.J.A.* xxxix, 1935, p. 534.

⁵ Dussaud, *Syria* ix, 1928, p. 137, fig. 6.

levelling. Owing, however, to the very unevenness of many of the floors, they were never wholly obliterated by this process nor were walls completely carried off.

Within the 7.50 m. building-complex two streets or alleys, meeting at right angles, and several large rooms were clearly defined. Walls were made in three ways: (a) of unbaked brick, resting on a stone socle; (b) of unbaked brick resting directly on the ground; (c) of pounded mud, with, or more frequently without, stone foundation. The last type, unless it had a dressing of whitewash, was almost impossible to isolate from the surrounding earth, which was of the same composition

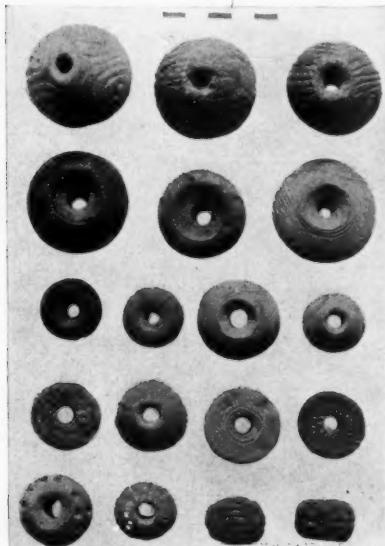


FIG. 10.—INCISED WHORLS FROM VARIOUS LEVELS IN SECTION A



FIG. 11.—SECTION A: HEARTH AND BASE OF ROOF SUPPORT, 7.50-M. LEVEL

and almost of the same texture. The walls lying along the streets were in some instances protected from wear and tear by upright stone slabs. The unique feature in the construction of the buildings of this level was the use of a very heavy roof-support, encased at its base in a thick dressing of pounded clay. It was a round log, possibly an untrimmed or only

roughly dressed tree trunk, against which lay the hearth (Fig. 11). These vertical supporting timbers varied in diameter between forty and sixty centimeters and were not infrequently driven into the ground to a depth of 1.50 m. Two were found in adjoining rooms to the north of the street, which runs from east to west. Their exact relation to the walls cannot be determined at present, for in neither room did all four walls fall within the excavated area. In relation to the south wall, however, which is continuous for the two rooms, they form together with two intervening post-holes, a continuous line of supports. They must, I believe, have carried, to judge by the narrow side walls, a gabled roof. We hope it may be possible in a future campaign to make a complete study of at least one of these rooms. Three units of the 7.50 m. building-complex were given over to household industries and the storage of food. Clay bins contained grain, dried peas and strings of figs and raisins. A large loom-rest, made for supporting a horizontal bar, and quantities of small, finely patterned whorls¹ lay near a hearth and doubtless marked approxi-

¹ Some are shown in Fig. 10.

mately the position of a loom. Somewhat smaller clay supports served to hold meat-spits over the fire. The hearths were usually oval in front and cut off on a straight line where they rested against the clay dressing of the wooden pillar. Some had only a simple low rim; others were surrounded on three sides by a horseshoe parapet.¹ One of these was unusually elaborate in its equipment (Fig. 11). To one side of the fireplace lay a heavy stone pestle or possibly a meat-pounder (Fig. 12).



FIG. 12.—PESTLE OR MEAT-POUNDER

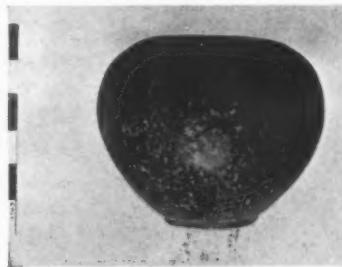


FIG. 13.—STONE MACE-HEAD

There is a very similar stone implement from Tepe Hissar in Iran.² Behind the hearth and on top of the pillar-base rested a quern and rubber for the preparation of flour. The parapet itself had a triangular arrangement of knobs, on which a pot might be set well above the flames, and against the back wall there is a curious shallow, vertical groove, for which I can offer no explanation. A number of small holes on the front face of one horseshoe-end may have served to hold small skewers of wood or metal for roasting bits of meat, like the kebabs popular in the Near East today. A storage pit yielded a number of interesting objects, of which the most important are a finely polished stone mace-head (Fig. 13) and a bronze spear-head (Fig. 14) or dagger, in an excellent state of preservation. This is cast in a single piece and obviously imitates a socketed type. It consists of a triangular blade,

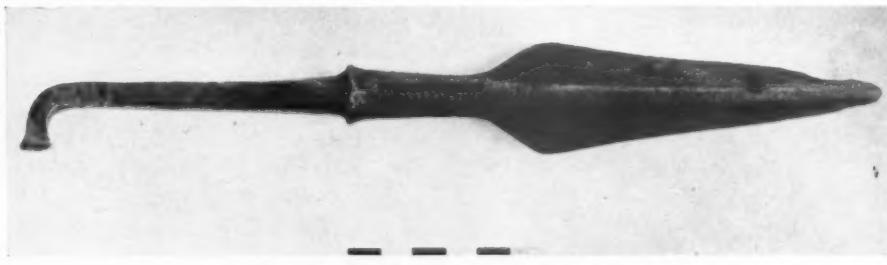


FIG. 14.—BRONZE DAGGER OR SPEAR-HEAD

a shaft with ten horizontally grooved facets, and a long tang, turned sharply to one side at the base. The grooves may once have held an inlay, of which, however, nothing survives. The central rib is very heavy. I think it is impossible to say definitely how the blade was used. The weight and heavy rib suggest the spear-head. The Syrian dagger, however, of the second millennium, shows the same short triangular

¹ Cf. *A.J.A.* xli, 1937, p. 269, fig. 16.

² E. F. Schmidt, *Mus. J.* xxiii, 1933, pl. CXLII, H. 485.

blade with central rib.¹ A Tepe Hissar blade, more leaf-shaped than that of Tarsus, has a tang with a similar angular turn at the end.² The best parallel, however, comes, if the drawings are reliable, from the so-called Treasure of Astrabad.³ It is significant that parallels both for the stone utensil and the bronze weapon point to Iran and Syria, rather than to central Anatolia.⁴

From among the charred remains of wooden implements which lay directly behind the hearth, Mr. Ehrich was able, by exercising extreme care and immediately flooding them with molten wax, to salvage fragments of two carved wooden knobs. They were completely charred, but fortunately still held together. One (Fig. 15)



FIG. 15.—CARVED
WOODEN KNOB

had a rosette pattern, which, although not carefully laid out, for the petals are shorter on one side than on the other, is executed in exceedingly fine lines. The other had a design of contiguous chevrons. Pottery from the 7.50 m. level included painted wares, of which the most interesting are the small "tea-pots," a shape encountered here for the first time at Tarsus (Fig. 16). The central one, with its somewhat awkwardly rising spout, is not unlike libation vessels depicted on Mesopotamian seals.⁵ The monochrome one-handled bowls of this level are more primitive in shape than the more definitely profiled bowls of the higher levels (Fig. 17).

Below 7.50 m. our work was only exploratory, as it brought us to the close of the excavating season, but there is every indication that we may hope for a fairly well-preserved building at a depth of eight meters or more. The pottery at this maximum depth shows elements of decoration and techniques not encountered at the higher levels. Handmade wares were not uncommon at 7.50 m. and they naturally represent an increasing proportion of the ceramic total the deeper we go. In the ornamentation, incision takes its place side by side with paint. The patterns, which at higher levels are based almost exclusively on the triangle, now include chevrons and parallel zigzags, enclosed vertically in panels. The biscuit is sometimes hard and mixed with grit. Frequently it is of a brick-red color, as in Figure 18, the cover of a jar. Figure 19 shows a vase with a dark, almost black surface and a purplish-red core; Figure 20 an egg-shaped, handmade pot of brown clay: a shape quite new to our excavations. Larger vessels, such as appear in Figure 21, have a single ornament placed on only one side of the pot. On the one illustrated it is a simple inverted feather or tree. This principle of design is more suitable for a flat surface than for a three-dimensional object, on which the pattern, however simple, is usually planned, whether continuous or spaced, to cover the whole spherical surface.

The seals and bullae found in the area of Section A this year were not numerous, but one outranks in importance all but the Iš-pu-tah-su bilingual seal of 1935,⁶ and

¹ P. Montet, *Les Reliques de l'Art Syrien dans l'Egypte du Nouvel Empire*, p. 34, fig. 12.

² E. F. Schmidt, *op. cit.*, pl. CXIX, H 7690.

³ Rostovtzeff, *J.E.A.* vi, 1920, p. 6, pl. III, 10, and Evans, *op. cit.*, I, p. 48, fig. 13.

⁴ Since writing this report I have seen the excellent parallel from Ras Shamra published by C. F.-A. Schaeffer, *Missions en Chypre*, 1932-35, pl. XXIII, 1; also p. 41, fig. 16, 3.

⁵ Von der Osten, *Ancient Oriental Seals in the Newell Collection*, p. 22, figs. 14, 26, 29, 61.

⁶ A. Goetze, *A.J.A.* xl, 1936, pp. 210 ff.



FIG. 16.—SPOUTED VESSELS WITH PAINTED DESIGN



FIG. 17.—MONOCHROME ONE-HANDED BOWL

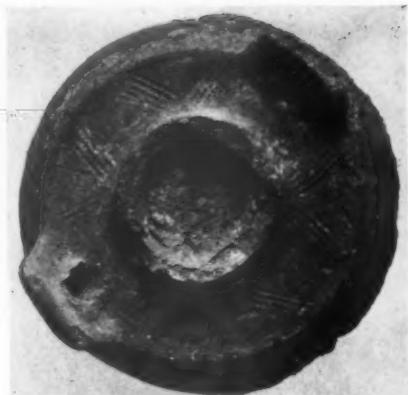


FIG. 18.—INCISED COVER



FIG. 19.—NARROW-NECKED VASE WITH INCISED ORNAMENT



FIG. 21.—TWO-HANDED JAR WITH INCISED ORNAMENT



FIG. 20.—MONOCHROME EGG-SHAPED VASE

has no rival at Tarsus for the perfection of its glyptic art. It is a conical bulla, through the apex of which once passed a cord. On the base is the impression of a lentoid stamp seal, with Hittite hieroglyphs enclosed in a simple ornamental border (Fig. 22). On the sides are the complete impression of one cylinder seal and the incomplete impression of another twice repeated. The complete impression consists from right to left of the following elements (Fig. 23). The god with the mace leads an animal (lion or panther?) by a long cord. His symbol, placed under the hieroglyph for god, is the same as that of the chief god of Yazili Kaya. By analogy he should be standing on two bowed human figures, but nothing appears on the bulla. The god with the triangular bow¹ confronts him. He stands on bow-knots. Between the two, presumably each going with one of the gods, are two vertical lines of hieroglyphs. Behind the god with a bow is a "tree of life"² (Fig. 24) and, underneath it, all that shows of a small figure: a pair of legs. The cutting is of great delicacy and precision. The photographs hardly do justice to the proportions of the figures, as the curved surface has caused a certain degree of foreshortening and consequent distortion. Cylinder seals of such pure Hittite style and using Hittite hieroglyphs are very rare indeed.³ The incomplete cylinder impression (Fig. 25) represents a god mounted on a double-headed eagle,⁴ facing another god, who, although not represented, may be inferred from the animal, probably a deer, which he leads by a long cord. Between them runs a vertical line of hieroglyphs. As a rule, Hittite gods are mounted on the animals they lead, but this is not so in the case of the Tarsus impressions. What was the purpose of three impressions on the clay sealing either of a document or merchandise? The stamp seal must be that of the man who remits the document or owns the merchandise; the cylinder impressions may be those of witnesses to a transaction, or, if they belonged to priests, they would have the character of amulets, putting the contents of the package under the protection of the gods.

Below 6.50 m. no seals or bullae were found. Their place was taken by clay stamps with simple linear patterns, such as are illustrated in Figure 26. They were found for the most part in the work rooms which contained loomweights and spindle whorls, as well as provender, and I think they are far more likely to have been used for stamping cloth or loaves of bread than for personal marks of identification or ownership, which is the primary purpose of the other type of seal. I hesitate, however, to draw from the fact that no other seals or bullae were found at this level the conclusion that none existed. These rooms, in which the household work was carried on, represent a self-contained economy. The food in the jars and storage bins, the wool for the cloth came undoubtedly from the householders' own fields and sheep or from those of his neighbors. A seal of the other type is a mark of outside communication, either through written documents or trade. Such self-contained economy is known even today in Europe in parts of the Balkans. In the region of Yugoslavia which was once western Macedonia I have visited homes where the equivalent of only about six dollars was spent annually. This was for the purchase of iron for tools.

¹ Compare the rock carving of Kara Bel, Garstang, *The Hittite Empire*, p. 177, fig. 12, and the Malatia relief, A. Moortgat, *Bildwerk und Volkstum Vorderasiens zur Hethiterzeit*, p. 21, fig. 19.

² Cf. K. Bittel, H. Güterbock, *Boğazköy, Neue Untersuchungen*, Taf. 28, No. 5.

³ For style compare the beautiful stamp seals from Boğazköy, *M.D.O.G.* 75, figs. 35-36.

⁴ Cf. Garstang, *The Land of the Hittites*, 1910, p. 214, pl. LXV.



FIG. 22.—CONICAL BULLA



FIG. 23.—IMPRESSION OF CYLINDER SEAL ON SIDE OF CONICAL BULLA. ENLARGED ONE AND ONE-HALF TIMES

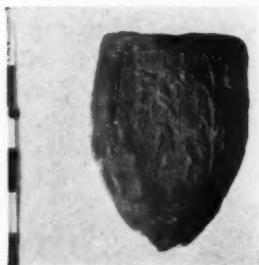


FIG. 24.—“TREE OF LIFE” ON CYLINDER SEAL IMPRESSION



FIG. 25.—INCOMPLETE IMPRESSION OF CYLINDER SEAL ON SIDE OF CONICAL BULLA



FIG. 26 A.—CLAY STAMPS, SHOWING DESIGNS

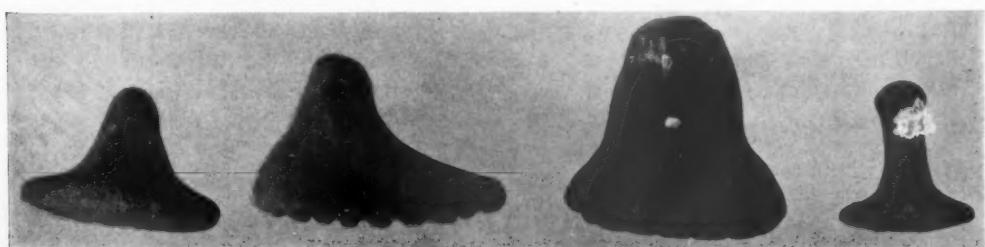


FIG. 26 B.—CLAY STAMPS

Everything else was made in the home. Although living conditions were primitive the woolen clothing was of excellent quality and the patterns knit into stockings and embroidered on garments intricate and beautiful. The ancient community of Tarsus represented by our houses of the 7.50 m. level may well have been on about the same cultural level as these Balkan communities. If there are elsewhere in the undug part of the hill the houses of merchants and scribes of this level they may contain stone seals or clay bullae.

The area of Section A, which in 1935¹ yielded so many lamps and terracottas of the first centuries B.C. and A.D., was re-examined. We found that it had been practically exhausted in the first campaign and only a few new types were added to our original collection. Among them the head of an old woman, so like in features and costume to the Arab women who daily pass before our excavation house, is perhaps the most significant acquisition (Fig. 27).



FIG. 27.—
HEAD OF AN
OLD
WOMAN

The Ovens. Brief mention was made in the 1936 report of pottery-ovens² on the southern slope below Section A. At that time four had been excavated. Further work in this area has increased their number to eight, of which six were contemporaneous and could, if desired, be fired at the same time. One had been partially destroyed in rebuilding and another fell into disuse when a new oven, constructed next to it, broke through its original western wall. Even this, however, does not, in all probability, represent the full number of pottery-ovens built on the slope. There is still undug ground to the east and the trenches of the World War probably destroyed some which had lain to the west. Standing against the base of the circuit wall in two tiers they form, even in their present incomplete and mutilated condition, a truly imposing series. In the upper tier there are now three large fire-pits and one small one. Of the floor on which the pottery stood nothing actually remains, but its position is accurately defined by the channels of flue-holes, which led the heat upward. A narrow brick wall, partially overhanging the lower chambers, divides the upper from the lower tier. Here we have excavated three ovens, complete—except that a large part of the pottery floor is missing—as well as the two partially destroyed ovens already mentioned (Fig. 28). Measurements give some idea of the size of these firing chambers. The maximum length was 6.00 m. and the greatest height between the floor of the furnace and the pottery floor above was 3.10 m. For the support of this floor the arch of the fire-pit did not suffice. Columns of brick were placed at irregular intervals to prevent collapse. One can be seen in the illustration. While the sides of the ovens were for the most part of brick or stone rubble, the back wall, formed by a vertical cutting in the slope of the hill, was merely covered with clay dressing, which soon became fire-hardened. The heat was distributed in part directly to the pottery floor by means of flues, in part it passed first to side chambers separated from the actual fire by thin brick walls (Fig. 29). From these side chambers the heat was further distributed through holes to the upper floor. That these side chambers were not in reality another form of support for the pottery floor, as might suggest itself, is proved by the excessive thinness of the partition wall. This can best be seen in Figure 29. It

¹ *A.J.A.* xxxix, 1935, pp. 530 ff.

² *A.J.A.* xli, 1937, pp. 271 ff.

could have had no functional value as support. One of the side chambers was covered with a curious glassy slag, which we at first thought might have come from the pottery fired in it. An examination, however, of the crude brick of which the walls were made showed that here alone clay, tempered with sand, had been used instead of the more common chaff-tempered clay. It is difficult to say for what specific pur-



FIG. 28.—LOWER TIER OF POTTERY-OVENS



FIG. 29.—FIRE-PIT OF OVEN WITH
SIDE CHAMBER

pose these side chambers were used, possibly for reduced oxidation firing, or for keeping painted wares separate from the unpainted.

One of the most interesting finds made in connection with our ovens,

which again produced an enormous quantity of broken pottery of Cypriote Iron Age character, were sherds that had been painted but not fired. The painting was both in the Black-on-Red and the White-Painted styles. The clay was in the so-called "leather hard" condition. Unfortunately the color disappeared for the most part soon after exposure to the air.

Trench Eight. In the field to the south of the hill an exploratory trench had been started in 1936 with a view to discovering whether the rapidly accumulating earth dumped from the upper excavation was covering anything of archaeological importance. It had been abandoned for lack of time when it reached an average depth of 4.50 m. Here a modern road-bed covered practically all of the trench floor. Everything above it had been drift earth, carried down in great quantities by the torrential seasonal rains of Cilicia. In order to expedite the work, the area of the trench was cut down to a four-meter square and this pit was excavated to a depth of slightly over eight meters. At 7.50 m. the water-table was struck and it was only

by constant pumping that the greater depth could be reached. The trench fell into two distinct parts. In the northern half, the side close to the slope of the hill, lay the undisturbed stratifications of the ancient settlement; to the south these had been sharply cut off by the laying of a stone foundation, 1.50 m. high. It consisted of fairly small stones, rather loosely bedded in a mixture of earth and potsherds. An attempt was made to determine its width by tunnelling into the side of the trench, but this effort had to be abandoned when it threatened to undermine a road in use at the present day. The eight meters investigated do not represent the complete width of the foundation. It was, I believe, not a wall, but either the bedding for a road or a barrier along the ancient water-front. The sherds taken from it are small and have for the most part lost all character through long immersion in water, but a few have profiles which can hardly be older than the late Hellenistic or early



FIG. 30.—CONTENTS OF JAR-BURIAL IN TRENCH EIGHT

Roman period. A bronze arrowhead found in the overlying soil is also of Roman type. In the northern half of the trench a burial lying in the earth was struck at a depth of 5.70 m. and directly beneath it a jar-burial, containing on top disturbed bones, which included an adult cranium, and, immediately below, the crouch burial of an infant, with three hand-made pots as funeral furniture (Fig. 30). There were two thin-walled bowls and a jug of a fine straw- or chaff-tempered clay. They had suffered greatly from the action of water and the original surface was quite gone. These two burials, found so close together, and another deposit of bones in the same trench indicated that we had struck an ancient cemetery. Of the burial jar itself only the lower half and scattered fragments of the rest remained. It was a vessel with wide open mouth and simple everted rim.

Trench Nine. In the hope of locating more graves and avoiding the inflow of water, a second pit, five meters square, was started eight meters east of Trench Eight and somewhat closer to the slope of the hill. Our hopes were not disappointed. The pit contained two excellent jar-burials and three which lay directly in the earth. Of the latter, one was clearly a secondary burial, in which some attempt had been made to lay out the bones approximately in their original relationship to one another; one was a so-called "bundle burial"—that is, the bones had been gathered into a heap—and the third consisted of scattered, but possibly originally related, bones. No thorough study has as yet been made of the very fragile skeletal material

of these five burials, but they seem to be for the most part the bones of young children. Jar-burial 2 (Fig. 31) had been covered over with large fragments of a similar pot and contained the skeletons of two children, accompanied by four pots (Fig. 32). Two bowls were similar in shape and texture to those of the first burial. A jug of light clay had broad vertical bands of a somewhat lustrous red paint and the fourth vessel was a jar of grayish clay. The bowls, though somewhat irregular in shape, are pleasing on account of the almost egg-shell thinness of the walls and the smooth white finish of the surface. They show clearly the marks of coiling.

Jar-burial 3 had been extended at the mouth by means of a stone cist (Fig. 31), which contained the largely disintegrated bones of one infant and the skull of another. On top of the jar, which contained the skeletons of four children, lay a bowl. Partly within the cist, partly in the mouth of the jar, three pots similar in form and clay to those of the other burials, had been placed. The sharp angle at which the knees of one of the skeletons were drawn up indicates that the body was probably trussed before inhumation. The crowding of so many bodies into the jars and the number of secondary and cast-out burials lying in the earth show that the cemetery lying at the foot of the ancient hill could not expand beyond a limited area. That we found almost exclusively infant burials is doubtless due partly to chance and partly to the excessively high rate of infant mortality in a primitive community. The pottery looks early. Nothing similar has been found as yet in the excavation of the hill itself, but in a sounding at the



FIG. 31.—JAR-BURIAL TWO ABOVE;
CIST OF JAR-BURIAL THREE IN FORE-
GROUND



FIG. 32.—POTTERY FROM JAR-BURIAL TWO, TRENCH NINE

Hüyük of Domuz Tepe, lying east of the Jehan river (ancient Pyramos), similar chaff-tempered pottery lay directly on the rock foundation of the site. While I cannot as yet venture even an approximate dating, the cemetery can hardly be later than the Early Bronze age and may be even older. Eventually, when similar pottery

has been found in the undisturbed cultural levels of the Hüyük, it will be possible to speak with more definiteness.

Section B. The further investigation of the large building in Section B,¹ to which we had last year added the room of the "mangers," was our objective again this year in deepening that part of the trench which had been left at a level of about 14.00 m. In spite of the fact that this area was literally riddled between the levels of 14.00 and 19.00 m. with intrusive pits, which at their base, where water had settled,



FIG. 33.—RHODIAN GEOMETRIC SKYPHOS



FIG. 34.—PROTOCORINTHIAN ARYBALLOS

became cavities of enormous proportions and irregular outline, it was nevertheless possible to iso-

late some fairly complete buildings and to establish a succession of floors. At a depth of 14.90 m. we found on the floor of a room, of which only an angle of wall was preserved, a piece of a Rhodian geometric skyphos (Fig. 33) and a Protocorinthian aryballos, without neck or handle (Fig. 34). The body of the aryballos is encircled by two broad, rather widely spaced bands and on the shoulder is a design of lozenges and hook spirals. The hook spiral is particularly common on the Protocorinthian wares manufactured in Rhodes, where, too, they are found together with the geometric, cross-hatched goose pattern. The best examples come from the necropolis of Vroulia.² There is a certain resemblance, too, with Johansen's transitional type between the "Aryballes pansus" and "Ovoides."³ I believe our example to be Rhodian, although without an actual comparison of the paint and the clay, which I have not yet been able to make, certainty is impossible.

Remains of houses were very fragmentary indeed until an apsidal building came to light at approximately 16.00 m. (Fig. 35). It is built of a variety of material. The eastern wall is composed of the broken stones characteristic of all prehistoric building at Tarsus and even much of the later construction. In the apsidal end there are a number of squared blocks, undoubtedly re-used material from an older structure. Of the western wall nothing remains which can be with certainty associated with the building, although there are a few stones and the remnants of a drain which align with it fairly well. We have none of the dimensions of the build-

¹ In future this will be referred to as Building B.

² Kinch, *Fouilles de Vroulia*, pls. 31, 33, 34, 38, etc.

³ K. F. Johansen, *Les Vases Sicyoniens*, pl. XIV.

ing, although we can estimate the width of the apsidal end, for the eastern wall runs under the undug earth which supports the pebble mosaic.¹ No floor could be associated with the apse, so that, beyond the interest of finding this building form in the early eighth or ninth century, it makes small contribution to our knowledge of the period. The photograph shows that there is a double line of foundation along the east. As the ground slopes very sharply from west to east, this need not represent an earlier building of the same shape, but may have served as a support to keep the foundation of the actual wall from slipping. The slope of the ground might



FIG. 35.—APSIDAL BUILDING IN SECTION B

also account for the total disappearance of the western side of the apse. It may very well have disappeared in a levelling process which left the eastern foundations, which lay much lower, intact. The ascertainable measurements (preserved length 12.00 m., approximate width 6.00 m.) point to a building of imposing dimensions. Unfortunately nothing was found to suggest the use to which it was put. Below the apse, in what is obviously not gradually accumulated earth but a fill thrown there to level up the uneven ruins of Building B, much late Mycenaean pottery came to light. The bulk of it is similar to that found last year,² but there were a few new shapes, of which the krater (Fig. 36) from an intrusive pit is the most interesting. It is probably not one of the vases imported from the Greek mainland. From the same pit came a bronze safety-pin without arch, a type which belongs to the end of Late Minoan III in Crete.³ Mainland and island examples are similarly dated by Blinkenberg⁴ to the end of Mycenaean times. A simple but very well made and solid gold earring has the same provenience (Fig. 37, b). It is a circle of gold, formed by fitting a pointed end into a tubular opening. Another ornament consisting of a gold sheath over a bronze core was so diseased that only the broken gold could be rescued.

The pottery associated with the Mycenaean was again found to be "drab" ware. The small jugs⁵ were very numerous. A number of hieroglyphic bullae were taken

¹ *A.J.A.* xli, 1937, p. 273, figs. 24, 25.

² *L. c.*, p. 282.

³ E. H. Hall, *Excavations in Eastern Crete, Vrokastro*, University of Pennsylvania Publications, p. 179.

⁴ *Fibules grecques et orientales*, p. 46, p. 50, fig. 17.

⁵ *A.J.A.* xli, 1937, p. 264, fig. 3.

from the fill, of which I illustrate one with a curious razor-back animal (Fig. 38). Thanks to Mrs. Ehrich's very careful work, discoveries have been made in connection with House B, the large house of the thirteenth or fourteenth century B.C. in Section B, which have at least in part solved the problems raised last year. In addition they introduce some new and interesting architectural features. One of the problems centered around the room with troughs, which we considered, I believe correctly, to be a manger room for the feeding of animals. The manner in which the animals were brought into this room was, however, not apparent at the time.



FIG. 36.—KRATER FROM A REFUSE PIT
ABOVE HOUSE B



FIG. 37.—A, GOLD PENDANT; B,
GOLD EARRING



FIG. 38.—BULLA
FROM SECTION B

Further excavation to the north and west showed that, at least in the second phase of the building, for it was apparently destroyed by fire at least once before the final collapse and abandonment, the north wall of the manger room was not solid, but communicated with an adjoining room to the north by means of openings between pilasters. There were three of these, one at either end and a third in line with the inner edge of the mangers, leaving, therefore, two open spaces. The pilasters are not of homogeneous construction, some parts consisting of superimposed bricks, others of a combination of unbaked brick and stone rubble (Fig. 39). This makes it probable that they were originally encased in wood, although, amid the many fragments of burned and charred wood which formed part of the destruction fill, none could be definitely assigned to the pilasters. Nor do we know whether they were finished at the top with something corresponding to a capital. There is some evidence, however, for horizontal wooden beams running lengthwise over the pilasters. These in turn were surmounted by four double rows of well-laid brick. The brick superstructure had broken at one end during or soon after the destruction of the building and the whole row sank fairly uniformly to a lower level. This, taken together with the fact that the under surface of the

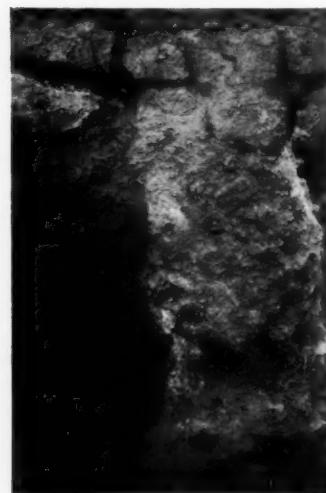


FIG. 39.—PILASTER IN NORTH WALL
OF MANGER ROOM, HOUSE B

lowest rows of bricks was burned much harder than the others, speaks for the existence of wooden beams above the pilasters. Above the bricks ran three parallel horizontal wooden beams, the space between being chocked with small stones and mud. The position of each beam is still clearly marked in the hardened remains of the clay bed in which it originally lay. The impressions show that they had not been squared, but retained the shape of the round log except perhaps for the levelling of the upper surface to receive a final double row of bricks.

The room to the north of the mangers (it will be referred to in future simply as the north room) opened on a street or court, which ran along the west side of the building at a level some sixty-five centimeters higher than the level of the room itself. This difference of level was adjusted by a step in the doorway. A post-hole marks the position of a light door, possibly a wicket. Through this doorway the animals must have been driven. While open to the street on the west, both the north and the east walls of the room were excavated out of the earth or rather out of the fallen débris of the first destruction. Nothing was done to finish the walls with even the usual dressing. This is not surprising if one considers that the north room was really nothing more than a dug-out, used to stable animals. Largely on the actual floor of the room, but also tilted at various angles in the débris which filled it, lay flat stones, averaging forty to sixty centimeters in length and six to eight in thickness. They were obviously flag-stones and when laid out on a flat surface a surprising number of joins could be made between stones found adjacent to each other. While a good many of these flag-stones had been calcined by heat, only the under surfaces were blackened, showing that they had been in contact with wood during the conflagration. The correct conclusion to draw would seem to be that the stones had formed a terrace above the north room and at the level of the upper story of the manger room. We now see how the owners of the house could, if they chose, leave by this upper exit without coming in contact with the stables, for the terrace leads by an easy decline to a stairway lying somewhat over five meters to the north. Of this stairway parts of three steps are still *in situ*. On account of the many intrusive pits at this point it is difficult to determine its exact width but it was not less than 2.70 m. (Fig. 40). The whole made a stately approach for anyone coming from the lower city, which doubtless had the same emplacement as the modern city and the Roman town which lies under it. Masses of pottery, but no individual pieces of outstanding interest, were found in the débris of House B. With the exception of a very few painted pieces, the pottery was almost without exception of the "drab" variety. The finding of painted sherds is important, as establishing another parallel with Boğazköy.¹ Figure 41 shows in succession from top to bottom: the manger room (the troughs were reburied to preserve them), with the stone-lined shaft of a Roman well;² the north room, with flag-stones at two levels, and, to the right, the doorway with the post-hole full of charred wood. Along the edge to the right runs the road or court, liberally pitted with the intrusions of all subsequent periods.

¹ M.D.O.G. lxxv, p. 40. "Diese bemalte Keramik zeigt ganz deutlich, dass es in hittitischer Zeit neben der grossen Masse einfärbiger Vasen immer auch in bescheidenem Umfang bemalte Gefässer gegeben hat."

² A.J.A. xli, 1937, p. 284, Fig. 43.



FIG. 40.—STAIRWAY NORTH OF
BUILDING B



FIG. 42.—ISLAMIC STREET WITH HOUSES

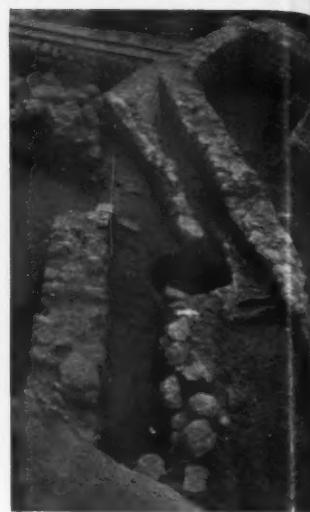


FIG. 43.—STREET WITH DRAIN
ROMAN LEVEL



FIG. 41.—MANGER AND NORTH ROOMS OF BUILDING B, WITH STREET OR COURT
RUNNING ALONG WESTERN EDGE

Section B was widened from the surface both on the eastern and the western side of the original cutting. The eastern widening measured 30.00 m. by 10.00 m. While the whole was dug to a depth of 12.50 m. (four meters under the surface), only a section 8.00 m. by 10.00 m. reached the Mycenaean level at 15.80 m. A good deal of last year's dump had first to be removed. Immediately beneath the surface lay Turkish graves of the last century and about fifty centimeters deeper a broad Islamic street, bordered by houses (Fig. 42). It had a long history, during which the buildings were several times remodelled, so that we have for the first time obtained well stratified Islamic ceramic material, separated by heavy floors, in some cases made of cement. Three methods of Islamic wall construction were observed. In every case a foundation trench was dug, but the nature of the fill varied: (1) a mixture of potsherds and rubble was thrown in; (2) rubble and concrete were poured together up to ground level; (3) wood, together with broken limestone, was thrown into the trench and then fired with the intention of producing lime, which would act as a binder. It resulted in a rather soft sooty foundation, mixed with larger stones, which, however, served as an adequate support for the larger blocks of the visible courses.

A Roman level, in part telescoped with the earliest Islamic, could be isolated, although it was ill-defined in all but a restricted area. It included a street with a covered stone drain running through the middle (Fig. 43) and a Roman well lined with carefully cut stone slabs: the duplicate of one situated some thirteen meters to the west.¹

The hope we had entertained, on the basis of the terracotta plaques found in the neighborhood, that the building to which the pebble mosaic formed an entry might be either the temple of Sandon or connected with the sanctuary, were not realized. The mosaic led into a large court, with a simple earth and clay floor. This in turn communicated with a room 5.35 m. wide and at least 5.80 m. long. The complete length could not be ascertained, as it runs into the side of the trench to the north. The walls of the room still retain a good deal of their plaster facing, which showed isolated traces of red coloring. It disappeared almost instantaneously when exposed to the air. The plaster, about one and a half centimeters thick, was backed by a coating of cement made with fine gravel of two and a half centimeters thickness. The surface was divided into panels (0.49–0.50 m. by 1.07–1.09 m.), marked by fairly deep incised lines. They probably formed a dado around the base of the whole room, although the actual preservation is very fragmentary and they are now found only along the south and west walls. In the center of the room was a rectangular hearth (0.80 m. by 1.10 m.), raised some thirteen centimeters above the level of the floor. The top of the hearth was hollowed, apparently from use, and was burned fairly hard. It was finished around the edge by a flat border, eleven centimeters in width. This is the first example of a fixed central hearth found in a building of the Hellenistic period, for we have reason to suppose that it dates from the late fourth, or more probably early third, century. The only object of interest found in connection with this building-complex is an earring of bronze and ivory (Fig. 44). The center of the disk and the eye of the dove have an accent of red paint. The type

¹ L.c., p. 284, fig. 43.

is common enough, especially in Cyprus, and is often executed in gold and semi-precious stones.¹ The building with the mosaic was not removed, but to the south the trench was carried down to deeper levels. The strata uncovered are not of sufficient interest to be described in this preliminary report, except for one at the level of our "Granary style" Mycenaean pottery. Unfortunately only a section fell within the excavated area, of which the most interesting feature was a platform of cement, roughly 3.00 m. by 3.00 m., raised a maximum of 0.37 m. above the surrounding floor. It slopes from east to west, where a drain of unbaked clay and oval shape was placed. The platform was well built and bedded on fairly large stones. Near the platform was a deep hole to receive a pointed vessel of large dimensions.

There seem to me two possible interpretations of this structure. It could have been a bath, but the situation in an open court is not favorable to this explanation. With more probability we may look upon it as a place for pouring libations in a religious ceremony. In both cases the pot would have been there to hold water, either for cleansing or ceremonial use. The oven just above this building-level is different from any other found at Tarsus and deserves a few words of description. While broken, enough pieces of the sides had collapsed into the interior to make the reconstruction certain. It was a rectangle, approximately 0.55 m. by 0.85 m., covered by a barrel vault of originally unbaked clay, some 7.00-7.50 m. high. At ground level

FIG. 44.—
BRONZE AND
IVORY
EARRING



FIG. 45.—A. FAÏENCE SCARABOID; B. SCARABOID OF STONE



and to one side there was a fire-hole, through which fuel was inserted, and the actual baking floor, which was approximately 0.25 m. higher, was reached through an opening at the front. A vent at the rear permitted the smoke to escape. From the ashes on the oven floor a small gold ornament was recovered. It consisted of a disk of fairly heavy sheet gold, carelessly cut out by hand, to which a loop of the same metal was soldered (Fig. 37, a). The seals of Figure 45 come from somewhat higher levels. Both are scaraboids, (a) of faience, with a kneeling figure of Egyptian style; (b) of stone, with a winged genius with raised arms, of a type common in Assyria and northern Syria.

In bringing the description of the eastern extension of Section B to a close, I wish to say a word about the circuit wall lying at an average depth of 13.00 m. along the southern edge (Fig. 46). It consists of heavy, large stones on the outer or southern side, some of which were carefully squared. We have nowhere, however, as yet found the original southern face, as it was shaved off, to what depth we cannot tell, by a trench of the World War. On the inside was a wall, 0.67 m. wide, composed of smaller stones, and the whole was overlaid with pounded mud and clay bedded on a layer of straw. Undoubtedly a superstructure of crude brick rested on the mud and

¹ Benaki Museum, gold disk with carnelian bird, Segal, *Catalogue*, p. 22, pl. 4.

clay, strengthened, as can be seen in Figure 46, by a horizontal framework of wood. No evidence has as yet been found for wooden uprights. The inner wall of Sendschirli shows a similar use of wooden framework.¹

The western widening of Section B measured 14.00 m. by 8.00 m. Here we encountered the same main strata as in the eastern section, except that, on account of the strong slope of the hill from east to west, the different building periods were more telescoped. This was particularly noticeable at the level where the foundations of Islamic buildings cut deeply into Roman superstructure. The charming earring of Figure 47, made of silver with a large admixture of lead, is post-Roman.² At a depth of 12.00 m.-12.50 m. there was a large building, with walls of unbaked brick. It can be dated by pottery and an early example of lamp, Type VII,³ to the end of the fifth century or early years of the fourth. There were ovens and shallow firepits in two of the rooms and the floor had been flooded with molten bronze. We picked up sheets of the metal in considerable quantity. The building was undoubtedly a foundry, deserted after the accident which flooded the floors with molten metal.

At an average depth of 13.00 m. emerged the continuation of the building unit, briefly described and pictured in the 1936 report.⁴ It will be remembered that it was long in use, with many floors and several rebuildings. What we have uncovered this year represents the last phase, while it was in the earlier phase that the Assyrian tablets were found, embedded in the floor of a room (Fig. 48, p. 53). From the excavation of 1937 we now get a picture of the seventh-century city as one laid out (possibly under the influence of Assyrian conquerors) with a certain regularity. Again there was a street (exposed length 1.70 m., width 1.40 m.), running north-south and roughly paralleling the one further east excavated in 1936. It opens into a wider and somewhat better laid east-west street (2.00 m. wide). The rooms yielded, as last year, an abundance of iron. The trench was left at this level.

From unstratified levels I illustrate a fine "Samarra" bowl of mustard yellow lustre ware (Fig. 49) and one of the few pieces of Islamic glass which permitted of reconstruction (Fig. 50). Time was found this year to make casts from our large collection of Roman moulds of the second century A.D. The comic siren or soul bird (Fig. 51), of doubtful charm but strong personality, challenges our conception of the classic tradition.

It is now possible, if we combine the results of our three excavation campaigns

¹ *Ausgrabungen in Sendschirli, II*, pls. XV-XVI.

² Dr. Ettinghausen of the Institute for Advanced Study calls my attention to a gold earring of similar design from the fifth-sixth century A.D. M. Rosenberg, *Geschichte der Goldschmiedekunst*, p. 87, fig. 146 (earring found in Taormina and now lost).

³ Broneer, *Corinth, IV*, part II, pp. 45 ff.

⁴ *A.J.A.* xli, 1937, p. 274, fig. 27.



FIG. 46.—CIRCUIT WALL IN SECTION B SEEN FROM ABOVE



FIG. 49.—BOWL OF "SAMARRA" WARE



FIG. 50.—ISLAMIC GLASS



FIG. 47.—EARRING OF SILVER AND LEAD

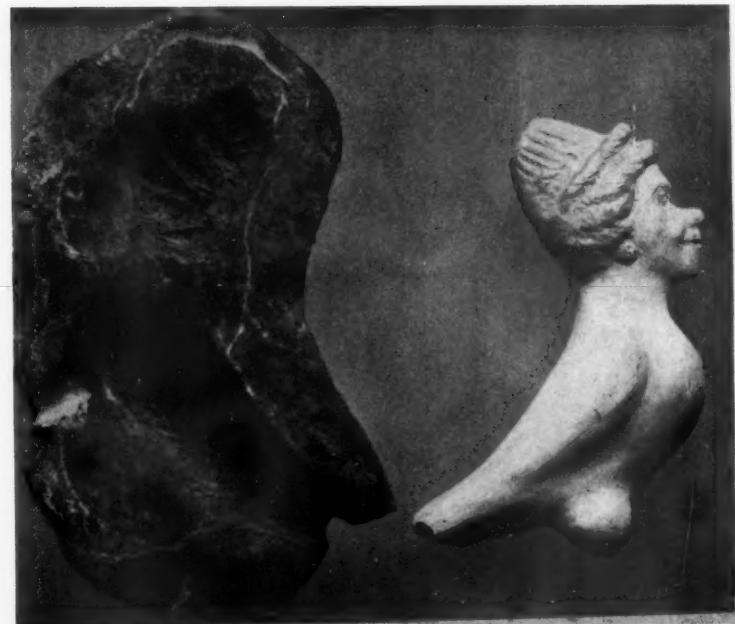


FIG. 51.—MOULD AND CAST FROM THE FACTORY OF THE SECOND CENTURY A.D.

with some of the unpublished data from the trial trench of 1934, to outline, even if somewhat dimly as yet, the relations of the Bronze Age of Tarsus in the second millennium B.C. to that of neighboring countries. The trial trench, which fell within the area afterwards called Section A, reached a depth of 14.50 m., that is, some six meters deeper than the systematic excavations on a large scale. Here we found sherds which showed as close a relation to the Cypriote Black-Slip Ware, characteristic of the end of Early Bronze and of Middle Bronze, as the Tarsus pottery of the first half of the first millennium shows to that of Iron Age Cyprus. Allowing for the possibility of local manufacture and local variants in design, the wares are the

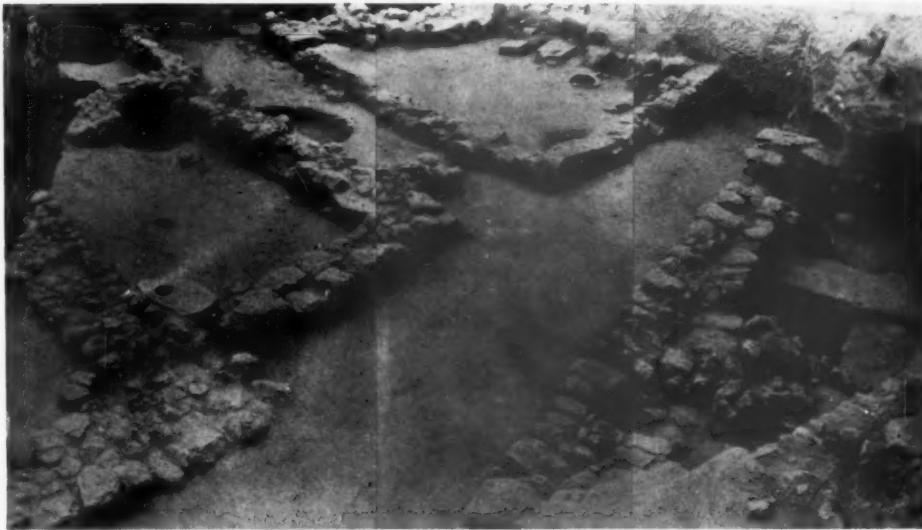


FIG. 48.—BUILDING AT 13.00-M. LEVEL, SECTION B

same. This established for us a link with Cyprus between the years, to keep our correlations in the most general terms, 2500–1800. Until we have more material of this period and above all until we know whether the cultural stream flowed from the continent to Cyprus or in the opposite direction, it would only confuse the issue to attempt to be more definite. Between meters ten and eleven we find another Cypriote link, this time with the Red-on-Black Ware, which makes its appearance in Cyprus in Middle Bronze II, assigned by Dr. Gjerstad¹ to the years 1900–1750 B.C. It lingers on in Cyprus into the third Middle Bronze period, but in small quantities. At no period is it very common and Dr. Gjerstad suggests that it may be an import in Cyprus.

For the two and a half meters that intervene between the occurrence of Red-on-Black Ware in the trial trench of 1934 and the eight meters reached in Section A this year, we have no evidence. The javelin (cf. p. 35) or spear-head had, however, as we have seen, a fairly close parallel in Iran at Tepe Hissar III, attributed in the

¹ E. Gjerstad, *Studies on Prehistoric Cyprus*, p. 335.

report on the work of 1931 "tentatively to the first half of the second millennium."¹ The era of the Tarsus painted pottery, in the earlier strata of which the bronze was found, can be correlated approximately with the second period of Ras Shamra, likewise dated by M. Schaeffer to the first half of the second millennium. For the last period of the Bronze Age, which at Tarsus falls into two distinct sections, the connections are with the Hittite empire of the high plateau. There are parallels in pottery, in bronzes and above all in the types of seals, which link the two regions together. The Hittite deed² shows the king disposing of Cilician land. Within this period of Hittite connection, however, Tarsus witnessed a striking change of fortune. At the lower, therefore earlier level, the large buildings of both Sections A and B (cf. p. 48) point to an era of stability. This is followed by one of disturbance and poverty, during which we have the first appearance of Mycenaean wares. As far as they have been studied they belong uniformly to the "Granary Style." It seems plausible to attribute the years of prosperity to the first extension of Hittite power over Cilicia, the later ones of poverty to the weakening of the Hittite empire in the second half of the thirteenth century; for the final collapse of 1200 B.C. must have been the culmination of a gradual decline in power. Regions subject to the Hittites may very well, too, have been drained of their man-power, and weakened by the demands made upon them for soldiers to carry on the Hittite struggle with Egypt in northern Syria. The men who brought the Mycenaean pottery to Tarsus would then not have been the prosperous merchants who colonized the Syrian coast and Cyprus, but one of the wandering and piratical sea people who troubled Egypt towards the close of the reign of Ramses II and in that of his successor Merneptah. The impoverished Cilicians themselves, in all likelihood, were among the raiders, who, avid for loot, descended upon Egypt. I think it probable that, in the heyday of their power, it was the strong arm of the Hittites which kept both Mycenaean and Cypriote merchants from settling in the Cilician plain. Not only do we not have Mycenaean pottery at Tarsus which can be assigned to the fourteenth century, but the White-Slip Ware of Cyprus, so common at Ras Shamra, where it occurs together with Mycenaean, is represented by only a very few sherds. To the theory that the finds made in Cilicia "correspond to the magnificent finds of various Mycenaean products which have been discovered in Syria during the French excavations in Lattakia,"³ Tarsus gives no support, nor have we reason to believe that Cilicia was "one of the Mycenaean outposts in the Levant."⁴ It is true that Mycenaean sherds of the fourteenth century have been picked up at Kazanli and I myself found one small fragment in the sounding made at Domuz Tepe, but they are a mere handful, which present no parallel with the masses of pottery and other objects of Mycenaean type found in Cyprus and Syria.

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¹ E. Schmidt, *op. cit.*, p. 472, and also at Ras Shamra. Schaeffer, *op. cit.*, p. 44: "ce type de lance des XXI au XIX siècles avant notre ère."

² A. Goetze, *A.J.A.* xli, 1937, p. 284; Goldman, p. 280, fig. 39.

³ E. Gjerstad, *R. Arch.* 1934, p. 199.

⁴ *L.c.*, p. 201.

A GREEK INSCRIPTION FROM TARSUS

DR. HETTY GOLDMAN, Director of the joint expedition to Tarsus, has asked me to publish a marble inscription which was found in an Islamic cistern during the excavations in the spring of 1936, and has very kindly supplied me with photographs, squeeze, and description of the stone, besides verifying on the stone a number of points which came up during my attempt to read and restore it.

Of the part preserved the dimensions are as follows: maximum height, .255 m.; width, intact, .298 m.; thickness, .017 m., with a finished surface at the back. There are no indications of the original height other than those which the probable restoration of the inscription may provide. The thickness shows that it was probably a revetment of some kind; it is clear that it was not a base for a statue. The letters have an average height of .015 m. and, in the portion in which the width is preserved intact, vary from 14 to 19 to the line. There follows a photograph (Fig. 1), a restored text and a translation of the inscription; all restorations are indicated in the translation by italics.

[Αύτοκράτορα Καίσα-]
[ρα Μάρκου Αύρηλιον]



FIG. 1.—GREEK INSCRIPTION FROM TARSUS

[’Αντωνεῖνον Εύσεβῆ]
 [Σεβαστὸν δημαρχικῆς]
 5 έξοιχσ[ας τὸ ή', ὑπατον
 τὸ] β', ἀνθύπατον, τὸν υἱ-
 ὃν Αὐτοκράτορος Καίσα-
 ρος Λ. Σεπτιμίου Σεουή-
 ρου Εύσεβ(οῦς) Περτίνακος
 10 Σεβ(αστοῦ). Τὸ συνέργιον
 τῶν ἐν τῇ σειτικῇ ὡ-
 μοφόρων Ἀδριανῆς
 Σεο]υηριανῆς Τάρσου
 τῆς] μητροπόλεως τῶν
 15 τριῶν ἐπαρχε[ι]ῶν [Κιλι-
 κίας Ἰσα]γρ[ίας Λυκαο-
 [νίας προκαθεξομένης]
 [καὶ β' νεωκόρου . . .

Translation:

“The Emperor Caesar Marcus Aurelius Antoninus Pius Augustus, in the eighth year of his *tribunician* power, consul for the second time, proconsul, son of the Emperor Caesar L. Septimius Severus Pius Pertinax Augustus. The guild of the porters in the grain market of Hadrianic Severianic Tarsus, the presiding metropolis of the three provinces of *Cilicia, Isauria, and Lycaonia*, and warden of two provincial temples of the imperial cult . . .”

In line 5 (which is the first line on the photograph) the letters ΣΙΑΣ of ΕΞΟ]-
 ΥΣΙΑΣ, though only partly preserved, can be recognized with certainty; part of the
 circle of Ο is intact and the two straight bars that follow before the Υ of ΥΠΑΤΟΝ
 can only be the lower part of an Η. In line 11 (7) one bar of Ν remains; there is no
 space for ΕΠΙ, so the restoration EN is certain. In line 15 (11) the final upright hasta
 of Ν is partially preserved, and enough of the Ε to make the reading certain. In line
 16 (12) there remain the right diagonal of Υ and enough of Ρ to leave no doubt about
 the letter.

The restoration of the first lines of the inscription depends upon the identity of
 the person honored and the date. Of the two sons of Septimus Severus, Geta at-
 tained a second consulship, but was killed in the fourth year of his *tribunician*
 power; Caracalla, on the other hand, received his second consulship and attained
 the eighth year of his *tribunician* power in 205 A.D. He is, therefore, the person
 honored in this inscription, and the date is 205 A.D. The form of his name used in
 restoring the first lines of the inscription follows that found in *I.G.R.P. IV*, 924-
 926, the dates of which also fall between 198 and 209 A.D., but several forms involv-
 ing abbreviation of the words *Marcus* and *Aurelius*, and the insertion of the word
Severus are equally possible. The titles of Tarsus in the Severan period are well
 known both from coins and from inscriptions (Head, *Hist. Num².*, p. 733; *I.G.R.P.*
 III, 879, 880). Failure to include at line 14 (10) the regular titles “best, greatest, and
 fairest” may be due to lack of space on the slab. It seemed better to restore τῆς
 than to insert, without parallels from inscriptions on stone, the condensed formula

ΑΜΚ (τῆς πρώτης καὶ μεγίστης καὶ καλλίστης) used on coins. Since we do not know the height of the stone, it is useless to conjecture what other titles were used besides those I have indicated.

This inscription makes known for the first time the guild of porters¹ at Tarsus. Guilds of porters are known elsewhere in Asia Minor, at Smyrna, where we find two associations, one, the street porters of the public square, οἱ φορτηγοὶ οἱ περὶ τὸν βεῖκον (*A.J.A.* i, p. 141), and the other, worshippers of Asclepius (*ibid.* 140), φορτηγοῖς Ἀσκληπιασταῖς², and at Cyzicus, the porters of the harbor (Waltzing, *op. cit.*, III, 46, no. 137: συνεδρίω τῶν σακκοφόρων λιμενιτῶν, found at Panderma), who may also be mentioned in two other inscriptions (*A.M.* vi, p. 125, no. 8; x, p. 208, no. 33). At Ephesus "the workmen of the propylaea, stationed near the temple of Poseidon," who had charge of the tomb of a surveyor (προμέτρου), were probably porters and may have been connected with a provision market (*B.C.H.* xix, 1895, p. 555: οἱ ἐν Ἐφέσῳ ἔργάται προπολεῖται πρὸς τῷ Ποσειδῶνι, found at Tire in Ephesian territory).

Although I have no direct verbal parallel to quote, δύορφ seems to me to be the most plausible word to supply with σειτικῆ. The care so generally exercised by most of the cities of Asia Minor in providing a supply of grain would be greater than the average in a city as large and important as Tarsus. In one with such a numerous and turbulent population of poor people (Dio Chrys. XXXIV, 21 ff.) the grain market would be an especially necessary provision. The great warehouse connected with the South market at Miletus shows that such a provision was made there (*Milet*, I, 7, 156 ff.). A nearer parallel to the present instance was the great grain market built with Hadrian's gift to Smyrna (Philostr., *Vit. Soph.*, I, 25, p. 531: τά τε τοῦ σίτου ἐμπόρια ἔξεποιήθη).

The three eparchies, Cilicia, Isauria and Lycaonia, previously portions of the provinces of Cilicia and Galatia, were combined during or before the reign of Antoninus Pius to form one province and this continued intact until it was broken up into smaller divisions during the reorganization under Diocletian (*I.G.R.P.* III, 290).

The occasion which inspired the porters to pay special honor to Caracalla remains a matter of conjecture, since we do not possess the end of the inscription. Coins of Tarsus under Caracalla, dated after he became emperor, record imperial gifts of grain (*Num. Chron.*, 1900, p. 96; *B.M.C.*, *Lycaonia*, p. 199, nos. 198-200). An earlier gift of the same kind may be celebrated here.

This inscription, therefore, besides adding one more to the scanty list of inscriptions concerning Tarsus, makes known a new guild of workers,³ and adds another piece of evidence to our information regarding the facilities for provisioning ancient cities.

T. R. S. BROUGHTON

BRYN MAWR COLLEGE

¹ On ancient professional corporations in Asia Minor see Waltzing, *Corp. Profess.* III, pp. 28 ff.; Oehler, *Eranos Vindobonenses*, pp. 276 ff.; Chapot, *Prov. Proc. Asie*, pp. 168 ff.; Poland, *Gesch. Gr. Vereinswesens*, pp. 116 ff.; Rostovtzeff, *S.E.H.R.E.*, p. 211 (Ital. ed.).

² Wilhelm, *Wien. Anz.* lxi, 1924, p. 115 says that these were connected with the market ('εμπόριον); Cf. Rostovtzeff, *loc. cit.*, note 42; *I.G.R.P.* IV, 1414.

³ Could the sacred guild (ἱερῷ συνεργῷ), composed of henchmen of Demeter (Δήμητρος Θεράποντες), of *I.G.R.P.* III, 883, be connected with the one under discussion here?

THE GREEK ALPHABET AGAIN

TRIAL balloons, in the guise of *A.J.A.* articles, are an innocuous scholarly pastime, much to be preferred to the ponderously armed, heavier-than-air treatises of the traditional learning. Five years ago I ventured to float such a balloon in the pages of this JOURNAL.¹ It was greeted by a loud burst of shrapnel from Prof. Ullman and some well-aimed rifle fire from Mrs. Stillwell and Prof. Blegen, but otherwise no very heavy ammunition was directed against it. Perhaps it was common opinion that the balloon had been hit and burst by the opening salvo. As I am still hesitant about inflicting upon inoffensive colleagues an entire volume on the Origin and Diffusion of the Greek Alphabet, I have again sought the tolerance of the Editor of this JOURNAL, to clear away the smoke around my balloon, which still floats unpunctured and unscathed.

I

Obviously, the summary way to dispose of my contention that the Phoenician alphabet was not converted to Greek usage until the close of the Geometric Period, or shortly before the year 700 B.C., is to produce a specimen of Greek writing earlier than that time. Mrs. Stillwell, believing that she had found such a document in her excavations at Corinth, very naturally and very rightly published it, in spite of my dissentient opinion on its date.² Her article, which appeared in this JOURNAL in 1933, was impeccably accurate in every respect and reflected a first-rate grasp of the technique of excavation. The excavator's enthusiasm for his finds being what it is, it is more than probable that anyone else who had found this inscribed sherd in a Geometric environment would have tended to think as Mrs. Stillwell did about its antiquity. There certainly was no harm in so doing. But when professional epigraphists, who should be able to recognize a typical specimen of sixth-century Corinthian writing, accept an eighth-century date for it as proven, and threaten to make the sherd a foundation-stone of Greek epigraphy, I am very reluctantly forced to remark that the excavational evidence is invalid. If a piece of black-figure Attic ware had turned up in the same company as this inscription, no one would have reached the conclusion that archaeologists had been dating Attic black-figure a couple of hundred years too late. Everyone would merely have asked how such a late piece came to lie where it was found; and, having asked that question, he would soon enough have guessed the answer. Indeed, Mrs. Stillwell has already supplied that answer. The inscribed sherd was unearthed underneath a water-channel amid a mass of broken Geometric pottery used for bedding.³ How old, therefore, is the sherd? As old as the Geometric pottery, said the excavator. But the correct answer is, As old as the water-channel. And for the date of this water-channel there is no evidence available other than the information that the room in which it occurs

¹ *A.J.A.* xxxvii, 1933, pp. 8-29, "The Antiquity of the Greek Alphabet."

² I chanced to be in general charge at Corinth at the time of discovery and was therefore already familiar with the material before it was published.

³ *A.J.A.* xxxvii, 1933, p. 607.

remained in active use through the fifth century B.C. The "unfortunate popularity" of broken sherds from the nearest available dump "as a bedding and paving material" in the potters' workshops, vitiates the whole argument. It is the old story of the intrusive backfill, which has already caused so many erroneous inferences in the excavation of classical sites. The lone inscription among masses of uninscribed fragments is not reassuring, on the principle once formulated by Droop¹ "that any one thing may have got anywhere" and perhaps better characterized among excavators as the Law of the Single Sherd.² But when we further note that another fragment of the *same inscription* was found, not underneath the water-channel at all, but out in the open elsewhere, free of any Geometric context, we must refuse to accept the dating as proven. Nor can we admit the early dating as probable, or even possible, once we see that the inscription itself bears unmistakable testimony that it originated in the closing decades of the sixth century.

The fabric of the sherd affords no criterion, since neither clay nor varnish is a characteristic indication of any specific period in the Corinthian industry, as our leading authority, Payne, easily persuaded himself.³ We are confronted, therefore, with a purely epigraphical problem.

Writing on Corinthian vases begins for us at the end of the Protocorinthian style, where letters which are usually meaningless may occasionally be found.⁴ A good instance of the large, ill-assorted letters characteristic of the initial phase of writing is the fragmentary pyxis from Aegina, illustrated by Payne and dated by him ca. 670 B.C.,⁵ and strongly reminiscent of the *ductus* of Theran script. The Pentekouphia tablets furnish abundant specimens of the sort of writing where the letters "sprawl across the field, in the manner of early inscriptions."⁶ The inscriptions on stone found by Payne at Perachora and soon to be published, as I understand, by Wade-Gery, are typically early in style, whereas the Cypselid bowl in Boston⁷ proves that by about 600 B.C. the Corinthian writing is fully matured, though still not as advanced as on our sherd.⁸ Such usage as we find on our fragment from the Potters' Quarter—non-retrograde, interpunctuated, with evenly spaced letters correctly aligned at top and bottom—is not to be matched until later in the sixth century. But if such evidence does not partake of common knowledge or universal acquiescence, the date can be conclusively fixed on internal historical grounds, since two of the proper names, of which the inscription consists, are impossible in Geometric times.

First there is Amyntas, "primarily a Macedonian name," as Mrs. Stillwell remarks. It is not fundamentally a proper name at all, nor drawn from native Macedonian speech, but a Doric Greek word, which seems to have become a proper name through its use as a title, bestowed on the Macedonian "Protector" of the Greek settlers of Chalcidice, who was ruling by 513 B.C., when we first have certain news of him. Corinthians came in contact with this "Amyntas" through their colony of

¹ *Archaeological Excavation*, p. 77.

² *I.e.*, A single sherd is not evidence: only accumulated instances constitute proof.

³ Payne, *Necrocorinthia*, pp. 264-6. ⁴ Payne, *op. cit.*, p. 38; Johansen, *Vases Sicyoniens*, p. 172.

⁵ *Op. cit.*, p. 98, fig. 30 and footnote 3.

⁶ Payne, in another context, *op. cit.*, p. 169.

⁷ Facsimile in *Boston Museum of Fine Arts Bulletin*, 1926, p. 51.

⁸ Cf. K. Y. imperfect alignment, and absence of word division.

Potidaea, which historians very generally accept as a sixth-century settlement, due to the tyrant Periander. Naming a Greek child after a barbarian king has good precedent, precisely for the sixth century. Amasis, the Athenian potter of the third quarter of the century, was probably named in honor of the Egyptian ruler who came to the throne in 569 B.C. Then there is the Greek Psammetichos, son of Theokles, of the Abu Simbel inscription, who must have been named in honor of the first King Psammetichos, in order to be old enough to have led the Ionian mercenaries up the Nile in 589 B.C. in the service of Psammetichos the Second.¹ But the most cogent parallel comes from Corinth itself, where the tyrant Periander's own nephew was likewise named Psammetichos. Amyntas of the inscribed sherd fits perfectly into this environment; but how can we possibly explain the word as a man's name in Corinth two hundred years earlier?²

Secondly, there is Angarios of the sherd, who clinches the matter. As Mrs. Stillwell points out, "Angarios, though apparently unique as a proper name, must be derived from *ἄγγαρος*, a courier (the Ionic form is *ἄγγαρήσ*)," though she is apparently not correct in thinking that the word comes "from the Assyrian *agarru*," which Prof. Albright tells me "means hireling, laborer working for hire, and cannot possibly have anything to do with *ἄγγαρος*." Rather, *ἄγγαρος* (and thus ultimately the Angarios of our sherd) "is to be derived from an Aramaic **aggara*, denominative from **egirta*, and meaning *one who carries royal despatches*. The formation in question is characteristic of Aramaic. Ionic *ἄγγαρήσ* is, then, only the normal Ionic form of an **aggārā(i)os* derived directly from **aggārā*. When one recalls that Aramaic was the commercial and official tongue of the Persian Empire, it becomes in the highest degree unlikely that the word could have been borrowed by the Ionians before the Persian conquest."³

Angarios the Corinthian, whether named in honor of a petty Asia Minor notable in the service of the Great King at the time when Corinthian-Ionian connections were most intimate, or given this name for any other fancy or reason, presents a precise parallel to the names Amyntas, Amasis, Psammetichos, and, like these, carries his own date with him. Not until after the downfall of Croesus could the Persian royal messenger and the Greek trader have come into contact, and (since there is no likelihood that our inscribed sherd is a baby-register) not until about 525 B.C. at the earliest could a Corinthian youth have borne the name. Thus, two out of the nine names on the sherd can be dated approximately, and both point to

¹ It was unpardonable of me in my previous article not to have known the evidence which Tod quotes in his *Greek Historical Inscriptions* (p. 6) to prove that the Abu Simbel *graffiti* belong to the reign of the Second, and not the First, Psammetichos. This was already the common verdict; but it is important to know that the question is no longer open to dispute.

² Nor does the natural comparison between the Maleqos of the sherd and the Maleqos of the Rexanor inscription from Thera necessarily suggest an earlier date, as one can convince oneself by reading Hiller von Gaertringen's "König Prokles von Thera," *Jb. Arch.* I. xlvi, 1932, pp. 127-134. With Prokles of Epidaurus, the father-in-law of Periander of Corinth, as the link, "the [children?] of Maleqos" on the sherd could fall in the second half of the sixth century and the Maleqos of Corinth be contemporary with him of Thera.

³ Prof. Albright rejects Andreas' pronouncement in Marti's *Kurzgefasste Grammatik der biblisch-aramäischen Sprache*, 1911, deriving *ἄγγαρος*, *Eilbote*, from Aramaic *eggārtā*, *Brief*, =mitteliran. **hangērt*, **angērt*, *angird*, but remarks that in this case also "were this correct, *ἄγγαρος* could not appear before the third quarter of the sixth century."

precisely the same period, the latter part of the sixth century B.C., which conforms with the date already reached independently on grounds of epigraphic style.

Surely, with all these indications to warn us, it is a very hazardous procedure to single out this Corinthian sherd as the earliest known specimen of Greek writing, or to hang an entire theory of the origins of the Greek alphabet from its frail little carcass.

II

Thanks to their discoverer's courtesy, the Hymettus vases with their inscriptions were already known to me at the time of my previous article, but I was naturally not at liberty to discuss them until they had been published. This, however, Prof. Blegen very promptly proceeded to do, with an admirable combination of completeness and conciseness.¹ Now that further comment is in order, it would be tempting to make the obvious suggestion that Geometric pottery of such unpretending character might well have been manufactured in rural Attica all through the seventh century, that the only inscribed sherd which shows any decorative drawing (the grazing "horses" on No. 19, Fig. 9) belongs stylistically with the decadent animals of later Phaleron jugs, and that the alphabet employed on these sherds is in any case considerably more advanced than that of the famous Dipylon jug, so that we still depend on the latter for our argument on the antiquity of the alphabet in Attica. But, at risk of seeming to offer a lame defense, I prefer to stress the point that neither I nor my adversaries will really know more than we know at present—which is, of course, that our earliest extant writings in Attica occur on Late Geometric material—until a more thoroughgoing attempt has been made to establish the chronology of these Late Geometric vases, particularly with reference to what one might call the "Geometric Overlap," i.e. the period when the older fashion of Geometric pottery precariously survived the competition of the newly popular Orientalizing style. At Sparta the excavators of the Artemis Orthia sanctuary found Geometric and Orientalizing sherds intermixed in the same stratum and estimated the "Geometric Overlap" at a minimum of 25 years.² The corresponding phase in Attica can presumably be determined by excavation and observation, but at present we are wholly in the dark. If anyone will prove that the famous Dipylon jug with the dancers' inscription was made in the eighth century, I shall not argue in reply that the inscription may be much later than the jug (for I do not think this likely), but gladly admit that I have been dating the introduction of writing into Attica too late. But first let us be clear that we have the date of the Dipylon jug. There is urgent need of a much broader basis for our problem; and since nothing short of a properly documented study of the chronology and evolution of Attic Geometric ware will serve, to such a study, whensoever it may appear, I must refer the student, begging him for the present to withhold his judgment, rather than merely assume the antiquity of Attic writing from the presumptive age of vases, the true date of which he does not know.

As I envisage the present state of the controversy on the antiquity of the Greek

¹ In *A.J.A.* xxxviii, 1934, pp. 10-28.

² Dawkins, *The Sanctuary of Artemis Orthia*, pp. 17, 66 and fig. 28.

alphabet, with every effort to reach the truth rather than to defeat any adversary, (1) there is no decisive evidence except the archaeological evidence; (2) this is weakened because much of it is negative rather than positive; (3) yet it is sufficiently consistent and powerful to force us to believe that the Phoenician alphabet was introduced into Greece along with that Orientalizing influence which dealt the ultimate death-blow to the Geometric Age; and (4) the absolute date for this event is to be found only by fixing the chronology of Late Geometric ware and particularly of the "Geometric Overlap," i.e., the survival of Geometric into the following period.

The aspect which deserves most stress at present is the unambiguous uniformity of the available evidence. In Greece, writing is common on archaic objects, occurs very rarely on the very latest Geometric vases, and not at all on the earlier Geometric material. In Italy, writing is not found on or in conjunction with Geometric products at all, but appears for the first time, and then very rarely, in the succeeding period of Corinthian importation. Had writing already been firmly established for centuries in Greece, it should appear in Italy along with the earliest Greek contact.¹ It does not. Whereas, if the introduction of writing into Greece coincided, as I maintain, with the "Geometric Overlap," then we should not expect to find writing established in Italy until the Protocorinthian-import period. And this is the case.

For absolute dates we seem on slightly better ground for Italy than for the Greek homeland; yet here, too, it is the relative (i.e. archaeological) rather than the absolute (i.e. historical) setting which is sure. If we follow Nils Åberg in his *Bronzezeitliche und Früheisenzeitliche Chronologie* (Stockholm, 1930), we must take the evidence of the Regolini-Galassi Tomb and the Tomba del Duce to show that our first authenticated specimens of the Graeco-Etruscan script belong "not many decades before 650 B.C." If we take Sundwall's *Zur Vorgeschichte Etruriens*² for our guide, we shall set the Tomba del Duce at about 670 B.C., the Tomba Regolini-Galassi some ten years later, and the introduction of the alphabet into Etruria a trifle earlier, noting that the introduction of Protocorinthian ware, which should slightly precede the alphabet, would occur at about 690 B.C. on the evidence of the Bocchoris Tomb. But in my judgment the most penetrating discussion of the date of the Tomba del Duce is to be found in Blakeway's recent article in the *Journal of Roman Studies* for 1935. His result—"not earlier than 675 B.C."—fully confirms the two preceding scholars' conclusions. His dating of our seemingly oldest Etruscan inscription on stone, the stele of Aules Feluskes, by analogies from the Chigi vase, involves, as the *earliest possible* period, the third quarter of the seventh century.

None the less, Ullman finds in Etruscan "evidence that all by itself completely annihilates the theory of a late origin of the Greek alphabet," though the only evidence which he specifically adduces is the Marsiliana alphabet, of which "Carpenter makes no mention."³ I cannot honestly plead ignorance of its existence; yet I am not quite sure whether I should, with Ullman, have ventured to characterize it as

¹ Alan Blakeway (in *J.R.S.* xxv, 1935, pp. 129 ff.; cf. his earlier article in *B.S.A.* 1932-33) argued that Greek Geometric ware was reaching Etruria (as well as Southern Italy) all through the eighth century B.C. But there are no inscriptions in Etruria or Southern Italy from the Geometric Period.

² *Acta Academiae Aboensis* vii, 3, 1932.

³ *A.J.A.* xxxviii, 1934, p. 379.

"this Etruscan alphabet," since it has all the marks of Greek and none of Etruscan. Perhaps *in extremis* one could call it Etruscan, as reproducing that specific form of the various Greek local alphabets, out of which the standard Etruscan had been derived. Yet I fear that even this position would not be easily tenable, because the normal Etruscan alphabet cannot be deduced from the Greek alphabet of the *Marsiliana* tablet without a very uncomfortable residue of violent transformations. Of course, the same quandary attaches to all the so-called *alfabeti modello*, as one may see from their tabulation in Buonamici's most serviceable *Epigrafia Etrusca* (p. 122). All that we are entitled to conclude from the *Marsiliana* ivory writing-tablet is that the Greek form of alphabet had reached northern Etruria in the course of the first half of the seventh century;¹ though it is certainly very important, and perhaps thoroughly significant, that a composite archaic Greek alphabet appears, carved as a writer's guide on a writing-tablet, in a North Etruscan environment at this crucial period. It was (and is) my argument precisely, that the Greek traders and colonists brought their knowledge of writing to the West in the opening years of the seventh century and that the Greek alphabet was at that time adapted to the peculiar needs of the Etruscan tongue. I am not blind to the intricacies in the problem of the derivation of the Etruscan and the Roman alphabets, and I am quite prepared to admit that ultimately there may here be aspects which may demand much more extended discussion. But one cannot tell at present, in a question with such intricacy and scope as this, whether the final skirmish will be fought over the Phrygian "black stone of Tyana"² or the cippus under the *lapis niger* of the Roman forum. If the conflict finally centers in the West, we shall have to go into details which at present do not seem decisive or even significant.

For example, if to some observers the Etruscan alphabet looks Boeotian or Phocian, rather than Cumaeian or Chalcidian (as it did to Hammarström in a highly important contribution³), we still must envisage the possibility that the art of writing may have been acquired at, or disseminated from, Delphi, before we fall back on "pre-Cumaeian" or other earlier but purely hypothetical uses of writing in the West. Or again, if someone should argue (nobody has; but it is a good argument) that since Corinthian was overwhelmingly the dominant artistic influence in Etruria throughout the seventh century, on any theory of a late introduction of writing it should have been the Corinthian which begot the Etruscan script, precisely as Tacitus seemed to think⁴—we still might reply that the penetration of Corinthian potters and their pots into Etruria is not necessarily the same topic as the spread of the use of writing.

Nor does the use of writing in Rome suggest any discrepancies in the theory. If

¹ May I correct Ullman's "about 700 B.C." to this slight extent?

² *Liverpool Annals of Archaeology and Anthropology* i, 1908, pp. 10–11; 13–16; pl. xiii.

³ "Beiträge zur Geschichte des etruskischen, lateinischen und griechischen Alphabets," in *Acta Soc. Scient. Fennicae* xlix, 2, Helsingfors, 1920, pp. 42 ff.

⁴ In *Annals* xi, 14, Tacitus ascribes the introduction of writing into Etruria to the Corinthian Demaratus. The date (ca. 650 B.C.?) would not be far wide of the mark; but the Etruscan script is not a Corinthian derivative. Nevertheless this tradition may have been correct, in the sense that a knowledge of the Greek alphabet may well have come into Etruria along with the Greek cultural penetration which Demaratus symbolizes. The Corinthian penetration might have been based on Syracuse, which did not use the Corinthian script either.

"the absence of reliable records for almost all eighth-century Greek events is paralleled by the identical absence of records of early Roman history," surely this is an argument for the late introduction of writing into *both* civilizations, rather than (as Ullman would have it) into *neither*. I can see no possible justification for assuming that the Latin town near the mouth of the Tiber had acquired a method for recording its speech by alphabetic symbols before the second half of the seventh century. (Many of the remoter Italic peoples must have learned the art still later.) Without re-arguing the inconclusive question whether the Romans learned their alphabet from Greeks or Etruscans, the well-recognized difficulty of deriving it wholly from a Greek source without Etruscan mediation¹ is most easily reconciled with a late seventh- or early sixth-century origin during the first period of Etruscan cultural (and perhaps political) domination of Rome. The famous Praeneste fibula belongs, on archaeological grounds, to the end of the seventh century. If Praeneste was the focus of Etruscan influence across the Tiber at that time,² the introduction of writing into that part of Latium would follow almost automatically. None of these coincidences has any application to the eighth, ninth, or earlier centuries.

III

Since the alphabetic diffusion took place from East to West, it may seem more logical to turn to the East for illumination. And here there can be nothing but praise for Ullman's methodical collection of the Semitic evidence. Indeed, so good is this evidence, and so well is it presented, that I am forced to grant that the dispute is as good as settled in this sector. As a result of Ullman's elaborate discussion of the individual letter forms, it becomes apparent that there are in early Semitic writing three crucial types of phenomena involving, (1) stagnant letters, such as underwent no significant change of shape in the period under survey, e.g., *san*, L, O, R; (2) erratic letters, where the same forms recur sporadically in early and late inscriptions of the period, so that no chronological inference is valid, e.g., B, Z, H, T; (3) evolving letters, with a specific and recognizable trend in chronological succession, e.g., A, K, M. Methodologically, only the last class is of the slightest value for our problem. If a Semitic letter begins in a form wholly unlike the archaic Greek, evolves consistently, passes through a form nearly identical with the archaic Greek, and finally attains a form which is once more unlike the archaic Greek, then the only permissible conclusion is that the borrowing took place during the period when the Semitic and Greek forms were most nearly identical. And since it is not possible that the letters were borrowed piecemeal, now one and now another, or a few at a time (for the simple reason that until there have been borrowed enough letters to express a language, all writing of that language is impossible), only a date which satisfies the evidence from *all* the "evolving" letters can be correct.

If we take Ullman's own tabulation of the three most crucial "evolving" letters,

¹ Hammarström, *op. cit.*, pp. 8-34. There is a good brief summary of all these problems in the new *Handbuch der Archäologie* (ed. Walter Otto), Fasc. 1, 1937, pp. 206-213.

² Cf. Schachermeyer in Pauly-Wissowa's *Reallexicon*, s.v. *Tarquinius* (published 1932), where it is suggested that the famous Praenestine tombs were Etruscan. The alphabet of the fibula can equally well be derived from a Cumaeon source or from a Graeco-Etruscan *alfabeto modello*.

A, K, and M, and put underneath them his collection of archaic Greek forms¹ which must be their offspring (Fig. 1), we do not need (or want) a Solomon to give us judgment. Only when the Greek forms are moved along so that they fall somewhere underneath the Semitic columns 10–15, can we produce agreement between Semitic and Greek, or give any plausible explanation how the forms of the latter were borrowed from the former. Since there is immediately thereafter divergent development in these letters, the lame hypothesis of parallel earlier development is eliminated. For we cannot assume that there was a *lost* earlier A or K or M in Greece

TABLE I—SEMITIC

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
KKKKK	KKKK	K	K	K	K	K	K	K	KKKKKK	K	K	K	K	K	K	K	K
VVVVV	VV	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
LLL6	LLL6	L	L	L	L	L	L	L	LL	LL	LL	LL	LL	LL	LL	LL	LL

TABLE II—GREEK

1	2	3	4	5	6	7	8	9	10	11
AAA	A	A								
K	K	K	K	K	K	K	K	K	K	K
W	W	W	W	W	W	W	W	W	W	W

SEMITIC

BBBBB	BBB															
↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑

FIG. 1.—COMPARATIVE TABLE OF CRUCIAL LETTERS (A, K, M, AND B)

to match the earlier A or K or M in Semitic, because then we should have to believe that these forms developed *pari passu*, only to stop keeping step precisely at the moment when the epigraphic evidence begins for us in Greece!

The period of transmission from Semitic to Greek must therefore fall between ca. 825 B.C. (which is the date for column 9, and too early) and the seventh century (which is the date for column 16, and too late).

Naturally, it would be unfair to a distinguished scholar to assume that he had never noticed this awkward but obvious inference. A possible explanation of the situation was promptly offered. The variant forms of K—in spite of their occurrence in correct chronological sequence—were dismissed as *local* variations: if one investigated the right spot, one would surely discover a K of the ninth-century type already in use in the thirteenth century. But this is not in the evidence: it is pure

¹ Note that these Greek forms are local varieties which may be more or less contemporary, not a chronological sequence like the Semitic.

assumption. Besides, it is not even possible, as Dussaud has pointed out in a review in *Syria*, 1935, pp. 411 f., where he adduces the inscribed arrow from Roueisseh (col. 3 in Ullman's table) to show that the variations of K forms are *not* local, but chronological. As for the Semitic M, even though it looks progressively less and less like a Greek M as we retreat toward the thirteenth century, Ullman felt convinced that ultimately it must retrieve itself and spread its legs out horizontally again, instead of standing on its tail, "for if anything is certain about the origin of the alphabet it is that M is derived from the Egyptian water sign, which is always horizontal." But nothing *is* certain about the origin of the alphabet; and as ill-luck would have it, not long after Ullman published his article, the Tell ed Duweir vase¹ brought us a proto-Semitic legend of still earlier date with a still more vertical M.

All agree that we could do with a good deal more evidence on the Semitic side. But on the basis of what we possess at present, the archaic Greek alphabet is unmistakably of the type used in Semitic inscriptions of the late ninth and the eighth centuries B.C. Nor is it altogether a matter of indifference which end of this span of roughly a century (i.e. 825–725 B.C.) we choose to favor as the more probable. For if we postulate a ninth-century transmission we shall have to concede that the letters underwent no morphological changes whatever in Greek hands for more than a hundred years, but on the contrary tended to move closer to their Semitic prototype, since the Cyprus bowl of the third quarter of the eighth century B.C. still remains the Phoenician inscription which morphologically most nearly gives the illusion that a Greek hand might have written it.

Among the minor pricks and thorns of Ullman's valuable article the Byblus argument seems the most pointed. Yet it is not of the type out of which anything decisive ever comes. *Βιβλος* is not originally a Greek word: to judge from the mythical connection of Byblis and Kaunos, it is probably Carian. Its adoption into the Greek language implies that the material, *byblos*—probably as used for ropes and tackle, which is exclusively its sense in Homer and most frequently in Herodotus—had found its way into the Aegean in pre-classical times. (Much of the Greek nautical vocabulary, when not landlubber Greek, is thought to be Carian or Cretan.) We do not know why the Greeks called the Phoenician town of Djebel *Byblos*, nor how early this name is; but if we must go back of the twelfth century B.C., we are moving in the pre-classical, Achaean-Minoan world. How does all this prove that there must have been papyrus as writing material in Greece throughout the Geometric Period? The Bybline (or Bibline?) wine of Hesiod's *Works and Days* (v. 589) was usually held by the commentators to have been Thracian and not Syrian at all. But supposing it *were* Phoenician palm wine, what would be proved?

But the favorite and final argument of those whose opinion does not change, has been well formulated by Ullman, who argues quite accurately that "the absence

¹ Cf. *A.J.A.* xxxix, 1935, pp. 139–140. An illustration appeared in the *N. Y. Times* for June 8, 1934, and the *Illustrated London News* for Aug. 10, 1935. Cf. also *Syria*, 1935, pp. 418–420.

² And if we must argue these minutiae, note that the metre of *Βιβλυνος οινος* does not tolerate the digamma, so that in poetry, at least, it is not a very old phrase. More than one commentator has claimed it for a later interpolation on this account.

of early alphabetic inscriptions" (*sc.* in Greece between 1200 and 700 B.C.) "may mean . . . (1) merely that they have not yet been discovered . . . (2) that they have all perished, (3) that alphabetic writing was at first confined largely to papyrus." Considering the scale and thoroughness of excavation on Greek sites, I am prepared to claim that the first two reasons are equivalent to the third, which alone demands discussion. Apart from the logical flaw that it explains *ignotum per ignotius*, it is not a plausible plea in its own right. For (1) the alphabetic transmission was based on glyptic, not cursive, forms. The Semitic letters engraved on the Cyprus bowl form the immediate term of comparison with the archaic Greek inscriptions carved on stone or scratched on clay or graved on metal. Pen-and-ink forms do not enter into the problem, since the Greek archaic letters are patently not cursive. If ninth-century cursive forms on Phoenician parchment or paper had inspired a pen-and-ink-on-paper Greek alphabet at that time, the virtual identity between our earliest carved Greek letters and those of the Cyprus bowl would become inexplicable; and in any case, (2) since *γράφειν* in Homer means solely "to scratch or grave" (as its ultimate identity with our own verb "to grave" and the German *graben* would have suggested), if the Greeks first learned their letters in terms of pen and ink on papyrus, why did they refer to this new activity as "graving" (*γράφειν*) and dub their letters "gravings" or "carvings" (*γράμματα*)?

IV

It is not an accident that the best epigraphic document on the Semitic side should have come from Cyprus. Nilsson¹ and Hammarström² have given us the clue that the Greek alphabet must have arisen out of a knowledge of *both* the Semitic consonantal alphabet and the Cypriote syllabary, and hence could have been created only in a bilingual environment. Classical Greek, unlike Semitic speech, cannot be written so as to be intelligible or legible, if only its consonants are recorded. As others have already remarked, *ἄν*, *ἐν*, *ῆν*, *ὸν*, *ναί*, *νῆ*, *νν*, *ἄνα*, *ἄνω*, *ἄνεν*, *ἄνεω* would all be reduced to the single symbol N. So *έπι*, *άπό*, *ποῦ*, *πῆ*, *παῖ*, *έπω* would all equally be recorded by a single Π. And who, confronted with ΞΜΝΚΤΞΤΠΦΖΤΞΤΝΒΡ, would ever derive the first line of the twenty-second book of the Iliad from such an unsuggestive jumble? Hence, unless vowels were also evolved *contemporaneously* with the adoption of the consonants, no transmission to Greek use could occur. And not merely would familiarity with the Cypriote syllabary have suggested the possibility and practicability of including vowel values in the written record, but whoever adapted the Semitic alphabet to vocalic as well as consonantal notation chose precisely the five vowels used in the Cypriote syllabary, in spite of the fact that a Greek ear heard at least seven vowels in the language. We are so apt to take it for granted that AEIOU constitute the only vowels that there are, that we do not stop to consider how the possession of these particular five by our alphabet is a peculiarity requiring historical explanation.

To this may be added a second argument, which is, I believe, new. There is an entire family of Greek epichoric alphabets wherein the letter B seems to have been

¹ *Danske Videnskabernes Selskab. Historisk-filologiske Meddelelser* i, 6, 1918. Cf. Otto, *Handbuch der Archäologie*, p. 192.

² *Acta Soc. Scient. Fenn. xlix*, 2, 1920, p. 58.

lacking from the first, its place being taken either by Π or by some modification of Π, usually by the addition of a stroke. This class of alphabets, extending from Crete through Thera and the Cyclades to Corinth, is abundantly familiar to all epigraphists; but no reason for the peculiar state of affairs is suggested. If we take into account that (1) the Cypriote syllabary did not differentiate the sounds *b*, *p*, and *ph*, but used the same symbol for all three labials in any given vocalic combination, and (2) precisely in the eighth century the Semites had fallen into the reprehensible habit of forming their *B*'s and *R*'s so nearly alike as to be almost indistinguishable (cf. the lowest line of figure 1 taken from Ullman's tabulation, especially under columns 10, 12, and 13), we have a plausible explanation for the omission of the Semitic *B* symbol by the Greeks, as something worse than useless, because ambiguous.¹ Consistently with Cypriote usage, *P* had to do service for *ph* as well as for *b*, hence such phenomena as *πονεν* and *παυστος* in Crete, for *φωνεύν* and *Φαιστός*. To be sure, the syllabary was equally remiss in distinguishing the three dentals or the three gutturals; but since the Semitic signs for *d* and *t* and *th*, and those for *g* and *k* could not be confused with any others in the alphabet, their adoption into Greek usage could only be sheer gain—with the single slight proviso that the growing Semitic tendency to add a tail to the *D*, and thus make it look like an *R*, had to be cropped. Thus the only two minor objections to an eighth-century transmission which seem to emerge from Ullman's long and exhaustive review of the morphological development of the Semitic alphabet actually constitute added evidence in favor of such a date.

Whoever adapted the Semitic consonantal script to Greek usage, to conform with the vocalization of the Cypriote syllabic script, was apparently not "psilotic" (since he kept the *H* as an aspirate) and hence, in the eighth century, cannot have been an Ionian Greek; and he had no use for consonantal *waw*, else he would scarcely have relinquished the symbol to become a vowel. In that case, he cannot have been Aeolic, nor yet pure Doric; and we should have to locate a semi-Ionicized community in close contact with Cyprus. If this reasoning be valid (which it by no means can claim to be), the possibilities are narrowed down enormously, leaving Rhodes as the single obvious candidate, especially in view of its close cultural connections with Cyprus. In a bilingual community such as Citium, where Semitic was written down in consonantal script and Greek in syllabic, a Rhodian (but hardly possibly a Cretan) resident might have had the brilliant but not impossibly intelligent idea of combining the merits (and avoiding the glaring demerits!) of both systems.

Even if it did not originate in Crete, the new alphabet was certain to have spread to that island if invented during the eighth century, when the eastern connections of

¹ The need to escape the confusion inherent in the overclose similarity between the eighth-century Semitic *B* and *R* has left its mark on all the Greek epichoric alphabets, where the varying solutions of the difficulty afford an important clue to the earliest family relationships. In addition to the Cretan-Theran-Corinthian usage discussed in the text, the following devices for meeting the emergency were employed:

- (1) *B* was inverted to distinguish it from *R* (Carian).
- (2) *B* was elaborated into the form which we still use today (Ionia).
- (3) A wholly new sign for *B* (Ϝ) was introduced (from Carian *vu*) (Pamphylia, Megara², Selinus).
- (4) *R* was differentiated with a stroke (the "tailed rho," Euboea, Central Greece, the West).
- (5) *R* was curtailed to ◁ (Zancle, Magna Graecia, Etruria, sporadically elsewhere).

Crete were so strong. As for its further diffusion thence, it is vital to remember that the transmission of Oriental artistic motives to Corinth "came, not directly from the Orient, but from the orientalizing art of the Creto-Cypriote region."¹ Along precisely this route, at just this period of Greek awakening, I imagine the alphabet to have passed. Since we have neither archaeological nor historical warrant for believing that this avenue of communication was open and operative much earlier, it is perfectly legitimate to claim that we first find writing at Corinth on vases of the first half of the seventh century for the extremely simple reason that the device of alphabetic writing arrived there at that time.

My critics have deemed it absurd that this wonderful invention for recording and preserving unbodied speech should have spread like wildfire down the trade-routes and along the seaways of enlightened Hellenic thought, reaching Corinth in a single generation and distant Etruria in less than fifty years. But for myself, I hold it worse than absurd, I hold it un-Greek and hence unthinkable that it should have lingered for any considerable lapse of time among this intensely active people, in passive abeyance, known but unutilized. "Truly, the Greek climate does miracles to a young alphabet; we can almost see it growing."

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¹ Payne, *op. cit.*, p. 53.

ADDENDUM

After this article was set up, the Annual Meeting of the Archaeological Institute of America produced several papers germane to the general topic. Rodney Young presented detailed and convincing ceramic evidence from the Agora excavations to show that the Hymettus vases belong to the advanced seventh century and the Dipylon jug to the turn of the century at 700 B.C. Prof. Day's review of the Semitic evidence suggested that my article has not adequately emphasized the error of appealing to the cursive flourish at the end of the pen-stroke which produced the "tails" on Semitic letters. The Greek *genius scribendi* inevitably eliminated these tails, some immediately, others more gradually (cf. D, E, H, K, M, N, Y). Thus a tailed Semitic D would have produced a curtailed Greek one. Similarly, there are not many examples of the tailed Greek Σ, nor any of a tailless Semitic one at any period; yet the derivation is direct, immediate, and unquestioned.

R. C.

DIE MÜNZEN DER OLYNTHOS-GRABUNG
ZU HUGO GAEBLER'S "FÄLSCHUNGEN MAKEDONISCHER MÜNZEN II"¹
PLATES X-XII

IN No. 2 des Jahrganges 1935 dieser Zeitschrift² hat David M. Robinson, unterstützt von E. T. Newell, C. T. Seltman und O. Ravel, eine von K. Regling und H. Gaebler aufgestellte Behauptung zurückgewiesen, ein moderner Münzfälscher müsse in die amerikanische Grabung an der Stätte des alten Olynthos "um seinen Machwerken Legitimation zu verleihen"³ 6 falsche Tetradrachmen des Chalkidischen Bundes und 3 ebenfalls gefälschte Tetradrachmen von Potidaea "eingeschmuggelt" haben.⁴

Die im Titel genannte Akademieschrift bringt nun neuerdings die Echtheitsfrage dieser Olynthos-Fundstücke in verschärft ablehnender Form zur Erörterung und fügt den bisher für falsch erklärt 9 Fundmünzen noch eine zehnte – die in der Kampagne von 1928 ans Licht gekommene Sermylia-Tetradrachme – neu hinzu. Diese 10 Stücke bilden dabei den Kern einer ganzen Gruppe in der Schrift als falsch verworfener makedonischer Münzen.

H. Gaebler hat die in Olynthos gefundenen Münzen im Original bisher nicht untersuchen können. Da dem Verfasser dieser Vorzug im Athener Numismatischen Museum vergönnt war,⁵ hofft er durch das Ergebnis seiner Beobachtungen Entscheidendes zu der so heftig umstrittenen Echtheitsfrage beitragen und damit diese Diskussion zum Abschluss bringen zu können. .

Als ein an der Stätte des alten Olynthos in die Erde praktizierter Abguss einer gefälschten Sermylia-Tetradrachme wird in der neuen Schrift zunächst das bereits erwähnte, von D. M. Robinson in "The Coins Found at Olynthus in 1928" S. 9, Nr. 11 (Pl. I) publizierte Sermylia-Tetradrachmon verworfen.⁶ Dieses sehr schlecht erhaltene Stück (hier Tafel X, XI, Nr. 1) entstammt einem kleinen Schatzfund "which was lying with black-figured potsherds at the bottom of the pit dug in the native conglomerate just north of the east end of the long altar on the municipal centre" (a.a.O., S. 8). Die Zusammensetzung des Fundes – 6 archaische Tetradrachmen und 3 Kleinmünzen von Terone, 1 archaisches Tetradrachmon und eine Kleinmünze von Sermylia⁷ – ist nicht ungewöhnlich für einen archaischen Schatz

¹ *Sitz. Ber. d. Preuss. Akademie, Phil.-hist. Klasse* XXII, 1935, S. 835 ff.

² S. 244–245, Anm. 6 und S. 247, Anm. 2.

³ *Deutsche Literaturzeitung* 54, 1933, Heft 34, Sp. 1612. *Die antiken Münzen Nordgriechenlands* III, 2, 1935, S. 85 zu Nr. 5 und S. 208 zu Nr. 14.

⁴ Hierfür und für die freundliche Erlaubnis, vergrösserte Aufnahmen nach den Originalen der 6 hier auf Tafel X abgebildeten Fundstücke anfertigen zu lassen, bin ich Herrn Dir. Konstantopoulos zu Dank verpflichtet.

⁵ H. Gaebler, a.a.O., S. 838, Nr. 2 (Tafel X, 4). Vgl. *Die antiken Münzen Nordgriechenlands* III, 2, S. 106, Nr. 1.

⁶ Die unrichtige Namensform "Sermyle" bei Robinson a.a.O. hat schon K. Regling, *Zeitschr. f. Num. XLI*, 1931, S. 128 beanstandet. Vgl. H. Gaebler, *Zeitschr. f. Num.* XXXIX, 1929, S. 257, Anm. 3. In dem 2. Band der in Olynthos gefundenen Münzen hat D. M. Robinson dies berücksichtigt.

der Chalkidike. Das Aussehen aller 11 Stücke ist durchaus gleichförmig: durch langen Umlauf offenbar stark abgenutzt, zeigen sie sämtlich auch heute noch, trotz einer sehr scharfen Reinigung am Fundort,¹ etwas von einem schon früher gemeinsam erlittenen Schicksal, dem D. M. Robinson nach dem ersten Augenschein folgende Fassung gab: "They were all much burnt or badly sweated from some great conflagration" (a.a.O., S. 8). Schliesst somit schon diese gut bezeugte gemeinsame Herkunft und das völlig übereinstimmende Aussehen aller Münzen des Fundes den allein für das Sermylia-Tetradrachmon jetzt neu ausgesprochenen Verdacht nahezu aus — so ergibt eine genaue Untersuchung des als Guss inkriminierten Stückes selbst, dass es einwandfrei geprägt ist. Wäre zudem dies Einzelstück gegossen, so müssten alle übrigen 10 Münzen des Schatzes, die durchaus die gleiche Silberstruktur, das gleiche verblasene Aussehen haben, es ebenfalls sein.² Das aber hat bisher auch H. Gaebler nicht behauptet.

Fundumstände, Mitfunde und genaue Betrachtung des Stückes selbst ergeben somit keinerlei Anzeichen für die Annahme einer eingeschmuggelten Fälschung. Aber auch die von H. Gaebler bei dem Sermylia-Stück angeführten psychologischen Gründe sprechen im vorliegenden Fall durchaus gegen diese Annahme: Bis heute — 9 Jahre nach dem verdächtigten Funde — sind noch nirgends "weitere vermutlich noch vorrätig gehaltene Fabrikate" (S. 838) dieses Sermylia-Typus auf den Markt gekommen! Daher legitimiert auch dies auffällige Fehlen eher die Echtheit des einen schlechten Fundstückes, da die Erfahrung lehrt, wie schnell nach grösseren Schatzfunden Fälschungen der in ihnen enthaltenen wertvolleren Typen auf dem Markte erscheinen.³

Nimmt man aus allen diesen Gründen nun die Echtheit des in Olynthos gefundenen Sermylia-Tetradrachmons als erwiesen an, so ergibt seine weitere Untersuchung aber auch die Rehabilitierung jenes "höchst befremdlichen" Windhundes unter dem Reiterbild seiner Vorderseite. Er war auf den nach schlechten Gipsabgüssen angefertigten bisherigen Abbildungen des Stücks nur kaum zu erkennen. Vielleicht kann die vergrösserte Abbildung Taf. XI, 1 hiervon einen besseren Begriff geben: Trotz der schlechten Erhaltung und der überaus scharfen Reinigung des Stücks ist jedenfalls am Original die Form des langgestreckt dahingaloppierenden Tieres, sein vorgestreckter spitzer Kopf und sogar sein Schwanz ohne jeden Zweifel deutlich wahrzunehmen. Der Windhund muss also im Stempel der Münze vorhanden gewesen sein. Diese Tatsache erledigt daher mit einem Schlage alle für den Beweis der Fälschheit auch des Brüsseler Exemplares angeführten Gründe.⁴ Bei diesem — entgegen H. Gaebler's ursprünglicher Ansicht ebenfalls geprägten — Stück soll nämlich der Windhund durch Fälscherphantasie erst entstanden sein: Der Fälscher habe Ueberprägungsreste, die schon E. S. G. Robinson bei dem einzigen auch von H. Gaebler für echt gehaltenen Exemplar der Sammlung Spencer-Churchill, Lon-

¹ D. M. Robinson, a.a.O., Preface, S. VIII. Vgl. *Philol. Wochenschr.* 1933, Sp. 52, und *Zeitschr. f. Num. XLI*, 1931, S. 128 unten.

² Zum Vergleich ist hier Tafel X, Nr. 2 die Vorderseite der dem gleichen Fund entstammenden Terone-Tetradrachme Robinson, p. 8, Nr. 1 (Inv. 106 F) abgebildet.

³ Vgl. hierzu O. Ravel, *Rev. Num.* 1933, "Notes techniques," etc., S. 28—29.

⁴ A.a.O., S. 5—6 zu Nr. 1 und *Die antiken Münzen Nordgriechenlands III*, 2, S. 107 zu Nr. 1.

don zu erkennen glaubte,¹ missverstanden und unter Zuhilfenahme eines fremden Vorbildes zu dem Windhund umgestaltet.² Wenn sich aber nun bei dem echten Olynthos-Fundstück jene "Teile eines älteren Gepräges" (Mende-Tetradrachmon) in durchaus gleichartiger Weise wiederfinden — so kann diese Ueberprägungstheorie aus dem einfachen Grunde nicht mehr aufrecht erhalten werden, weil zwei Münzen kaum jemals in genau derselben Stempellage, unter Hinterlassung völlig gleicher Spuren des älteren Bildes überprägt werden dürften. Das identische Erscheinen der "Ueberprägungsreste" auch auf dem geprägten Olynthosfundstück macht es vielmehr sicher, dass sie auf den Stempel dieser Sermylia-Tetradrachmen zurückgehen und schon von E. Babelon richtig als *lévrier* interpretiert wurden. H. Gaebler's fernere Annahme, dass moderne Stempel benutzt worden sein könnten "die von dem echten Original im Gussverfahren abgeformt worden sind" (S. 838) ist schon deshalb unwahrscheinlich, weil diese Stempel dann einzig zur Herstellung des inkriminierten Brüsseler Stückes benutzt worden wären. Jedenfalls sind andere geprägte Exemplare ja bis heute noch nicht ans Licht gekommen. Nimmt man jedoch die Existenz solcher Falschstempel einmal an — so wären dann doch Abgüsse nach geprägten Fälschungen (!) gewiss sinnlos und gar die Vergrabung eines solchen Abgusses (anstatt eines geprägten Falsums!) in Olynthos noch unlogischer (S. 838). Da sich nun aber eben dieser "Guss" aus den oben angeführten Gründen als eine unbezweifbar echte originale Prägung erwiesen hat — liegt es dann nicht näher, auch die Brüsseler Prägung für eine originale Münze aus dem gleichen Stempel zu halten?

Wird aber mit dem Wegfall der Ueberprägungshypothese der schon früher erkannte Windhund unter dem Reiterbild dieses Sermylia-Typus wieder bestätigt — so darf er auch auf den bei Gaebler nun folgenden 3 Tetradrachmen eines anderen, leicht variierten Typus dieser Stadt nicht mehr als spätere Zutat und damit als Beweis auch für deren Falschheit aufgefasst werden.³ Vielmehr spricht nun kaum etwas gegen die Echtheit auch dieser, sonst nur noch aus stilistischen Gründen verworfenen Stücke. Solche stilistische Begründungen werden zwar stets, und zumal in der Numismatik, subjektivem Irrtum ausgesetzt sein: Doch sei gerade in diesem Falle für den "kläglich missratnen Oberkörper" und für die "wie hervorquellende Eingeweide aussehende Gliederung der Bauchpartie" des Reiters (S. 839) zum Vergleich statt vieler Beispiele nur auf den berühmten sog. *δρομοκήρυξ* des Athener Nationalmuseums hingewiesen,⁴ bei dem "die Aufgabe, den nackten Oberkörper in Wahrung des Zeitstils frontal darzustellen," in durchaus ähnlicher, nicht an naturalistische Seh- und Gestaltungsgesetze gebundener Weise gelöst wurde. Wie bei den ersten 3 Stücken spricht auch hier das aus gleichem Punzen stammende Quadratum incusum der Rückseiten eher für als gegen die Echtheit dieser Münzen. Jedoch ist zur endgültigen Beurteilung dieser Frage die Autopsie unerlässlich.⁵

¹ *Sylloge nummor. Graec.* I, 1, London, 1931, Preface. Vgl. hierzu auch *Die antiken Münzen Nordgriechenlands* III, 2, S. 106–107, Anm. zu Nr. 1.

² Zur Verdeutlichung dieser Ueberprägungstheorie soll auch die von H. Gaebler inspirierte Zeichnung *a.a.O.*, S. 837 dienen, eine wissenschaftlich nicht unbedenkliche Reproduktionsmethode, wie aus den z. T. hervorragenden Zeichnungen der älteren numismatischen Literatur bekannt ist.

³ *A.a.O.*, S. 839.

⁴ Inv. Nr. 1959. S. Papaspiridi, *Guide*, S. 30. Bulle, *Der schöne Mensch*, Taf. 263, S. 565, etc.

⁵ "Konvexe" Aufstülpungen am Rand der Incusa habe ich bei zweifelsfrei echten, aus Funden stammenden Akanthustetradrachmen häufig beobachten können.

Aus dem gleichen Grunde möchte ich die Frage der Echtheit bei den auf Tafel I, 9–11 von H. Gaebler abgebildeten Münzen hier nur kurz streifen. So stark stilistische Gründe scheinbar gegen antiken Ursprung dieser ebenfalls aus gleichem Incusumpunzen geprägten Stücke sprechen mögen, so wenig kommt man doch, wenigstens bei Nr. 9 und 10, um wichtige Indizien auch für deren Echtheit herum: Die Sphinx-Tetradrachme Taf. I, 9 ist mit einem von H. Gaebler nicht beanstandeten aber auch nicht erwähnten Fragment (!) von ähnlichem Typus im gleichen ägyptischen Schatzfunde von Benha-el-Asl ans Licht gekommen¹ und weist jenen für die dortigen Funde griechisch-archaischer Münzen so charakteristischen Einrieb auf, den ein Fälscher schwerlich in dieser Art angebracht hätte.² Die Reitermünze mit Ιφ unter dem Pferde ist in klarer Beweisführung bereits von O. Ravel wegen ihrer *surface reticulée* als zweifelsfrei echt nachgewiesen worden.³ Vorausgesetzt also, dass man beiden Stücken Taf. I, Nr. 9 und 10 aus diesen Gründen die Echtheit zuerkennt – so ergibt sich auch für Nr. 11 mindestens die hohe Wahrscheinlichkeit antiker Prägung, da ja dieses Stück – wie H. Gaebler zuerst erkannte – mit dem gleichen Incusumpunzen wie Nr. 9 und 10 geschlagen ist. Wir hätten mit diesen 3 Stücken dann allerdings Produkte einer bis jetzt noch nicht lokalisierbaren, sehr divergenten und merkwürdigen Prägestätte vor uns. Man könnte etwa an eine barbarische Münzstätte des nordgriechischen Randgebietes denken, die – ähnlich wie später punisch-sizilische Münzstätten – verschiedenartige griechische Münztypen willkürlich nachprägte.

Auch die nächste Serie von Fälschungen soll nach H. Gaebler wiederum durch 3 in Olynthos gefundene Exemplare legitimiert werden. Es sind die in der Kampagne von 1931 ans Licht gekommenen 3 Tetradrachmen von Potidaea, die auch K. Regling für falsch hielt.⁴ Die Untersuchung der ebenfalls sehr schlecht erhaltenen und in Olynthos selbst gereinigten Stücke ergibt jedoch keinerlei Verdachtsmomente: Es sind geprägte Originale im *état cristallisé* der Silberzersetzung,⁵ der in der Vergrößerung (Taf. XI, Nr. 2 und Tafel, X, Nr. 3a,b = *Olynthus*, VI, Nr. 133) deutlich wahrzunehmen ist. An einzelnen Stellen, zumal in den Vertiefungen der Rückseite, ist auch noch schwarzes Hornsilber zu bemerken, das bekanntlich bis jetzt nicht nachgeahmt werden kann und ein weiteres sicheres Kennzeichen der Echtheit darstellt. Mit den eigenartigen Incusa dieser Stücke haben wir uns also abzufinden. Vielleicht gelingt es in Zukunft einmal, die technische Entstehung ihrer in der Tat eigenartigen Form besser zu erklären. Mit dem Vorbehalt der Autopsie zögere ich jedenfalls nun

¹ E. S. G. Robinson, *Num. Chron.* 1930, S. 104–105, Nr. 30 und 31 (Pl. IX).

² Vgl. hierzu aber E. S. G. Robinson, *Num. Chron.* 1931, p. 71!

³ *Revue num.* 1933, S. 27–28. Die blosse Annahme künstlicher Erzeugung der auch von H. Gaebler bei diesem Stück beobachteten *surface reticulée* kann Ravel's Beweisführung nicht entkräften. Herrn M. P. Vlasto, Athen, danke ich den Hinweis auf die jetzt im Besitz des Britischen Museums befindliche Drachme des gleichen Typus aus der Sammlung Sir Hermann Weber. Unter dem Reiterbild dieser zweifellos echten Kleinmünze befinden sich ebenfalls die Buchstaben Ιφ. L. Forrer hat sie bei seiner Beschreibung des Stücks in *Weber Collection II*, S. 24, Nr. 1895, (Pl. 79) nur übersehen. Vgl. die ähnliche Drachme *Kat. Hirsch*, XIII (Rhoussopoulos) Nr. 1004 (Taf. 14). Mit dieser M. P. Vlasto und E. S. G. Robinson verdankten Feststellung fällt auch das gegen diese Kleinmünze ausgesprochene Verdict H. Gaebler's in *Die antiken Münzen Nordgr.* III, 2, S. 211, Nr. 35.

⁴ *Deutsche Literaturzeitung* 1933, Heft 34, Sp. 1613.

⁵ O. Ravel, *a.a.O.*, S. 24. Die Dicke dieser archaischen Potidaea-Statere vermindert natürlich in diesem Falle die Zerbrechlichkeit.

nicht, auch die mit ähnlichen Incusa geprägten, als falsch verworfenen Potidaea-Stücke, Gaebler, *a.a.O.*, Taf. II, Nr. 6-9 für antike Prägungen zu halten. Bei allen diesen Stücken handelt es sich vermutlich um Exemplare der zuerst von K. Regling zusammengestellten zweiten besseren Klasse der so seltenen Potidaea-prägung.¹ Auf die Frage der Echtheit der bei Gaebler Tafel II, Nr. 1-5 abgebildeten Münzen hier näher einzugehen, muss ich mir versagen, da ich keines dieser Stücke bisher im Original studieren konnte. Doch häufen sich hier die Verdachtsmomente für deren modernen Ursprung.

Den Abschluss und die Krönung der Fälschungen bildet aber auch in dieser Schrift wiederum die von K. Regling und H. Gaebler schon früher² als übles Machwerk erklärte Prägung des chalkidischen Bundes, Gaebler, *a.a.O.*, Taf. III, 3 (Text Nr. 8). Die 6 aus dem gleichen Stempelpaar geprägten Exemplare, die in Olynthos gefunden wurden, liegen mir im Original vor. Unabhängig von den bereits durch die Ausgräber vorgetragenen Gründen für ihren antiken Ursprung aus den Umständen der Auffindung heraus,³ möchte ich hier meine aus dem Studium des Gesamtschatzes, dem sie entstammen, sowie aus gewissenhafter Einzeluntersuchung der 6 als falsch verworfenen Stücke gewonnene Ueberzeugung ihrer unbestreitbaren Echtheit lediglich auf numismatischem Wege zu erweisen versuchen.

Der Schatz, dem diese 6 Stücke angehörten, besteht aus 31 Tetradrachmen des chalkidischen Bundes und 1 Tetradrachmon von Akanthus. Er wurde in der Nordostecke des Hauses A VI, 8 im Raum d, ca. 25 cm. über dessen Fussboden in einer Art Steinkasten "in no orderly arrangement whatever" zusammenliegend aufgefunden.⁴ Später wurden im gleichen Raum noch 2 weitere chalkidische Tetradrachmen entdeckt, die zweifellos auch dem Schatz angehören. Das Aussehen aller dieser Stücke, die mir vorliegen, entspricht durchaus einer solchen gemeinsamen Herkunft. Die für falsch erklärten 6 stempelgleichen Exemplare unterscheiden sich in ihrem Aeusseren nicht im geringsten von den meisten der 28 übrigen Tetradrachmen. Die Mehrzahl der dem Funde gehörenden Sticke zeigen auf Vorder- und Rückseite, meist über die ganze Fläche ihrer Prägung hinweg, jene schon oben erwähnte "altération de l'argent." O. Ravel hat sie zuerst als die in 4 Stadien auftretende Silberzersetzung erkannt, die von Fälschern niemals künstlich nachgeahmt werden kann⁵: "Seule l'action lente des siècles dans des conditions particulières favorables et sous l'action d'agents que nous ne connaissons pas, peut modifier ainsi le métal."

Die Abbildungen 4-6 auf Tafel X zeigen 3 Tetradrachmen des Schatzes in etwa

¹ *Zeitschr. f. Num.* XXXVII, 1927, S. 115, Anm. 1. Dort wird auch das nun für falsch erklärte Exemplar *Kat. Hirsch*, XIII (Rhoussopoulos), Taf. XIII, 951 und *Expl. Pozzi, Kat. Naville*, I, 1920, Taf. XXVI (nicht XX!), von Regling nicht beanstandet.

² *Deutsche Literaturzeitung* 1933, Sp. 1612 und *Die antiken Münzen Nordgriechenlands* III, 2, S. 208, Nr. 14. ³ *A.J.A.* XXXIX, 1935, S. 244, Anm. 6. ⁴ *Olynthus*, Part VI, S. 12 f.

⁵ *Revue num.* 1933, S. 23 ff. Durch geschickte Ueberprägung antiker Münzen, die von einer dicken Hornsilberschicht völlig überzogen sind, werden allerdings jetzt auch Fälschungen hergestellt, die jene natürliche *altération*, entgegen Ravel's Annahme, nahezu unzerstört zeigen: Die Fälscher entfernen die Hornsilberschicht erst *nach* der Ueberprägung und machen dadurch die nun unverletzt *unter* dieser schützenden Schicht stets vorhandene *altération* gut sichtbar. Eine eigentümliche Unschärfe und Flauheit, sowie die bei dem erwähnten Prozess unvermeidliche Verkleinerung des Münzbildes verraten (neben dem Stil der zur Neuprägung benutzten Stempel) dem geübten Auge jedoch auch diese neuesten Fälscherprodukte.

doppelter Vergrösserung, Tafel XII das gleiche Fundstück wie Tafel X, Nr. 4 nochmals in etwa vierfacher Vergrösserung nach den Originalen. Tafel X, Abb. 5 ist das noch von niemand, auch von H. Gaebler nicht, verdächtigte Fundstück, *Olynthus*, Part VI, S. 21, No. 12 (Tafel II und XXIV). Tafel X, Abb. 4 und 6 sind zwei der kategorisch für falsch erklärten 6 Stücke aus dem gleichen stilistisch schlechten Stempelpaar: *Olynthus*, Part VI, S. 22, Nr. 20 (Tafel II u. XXV) und S. 22, Nr. 23 (Tafel III u. XXV). Alle drei Fundstücke sind von der "Krokodils Haut" jener *altération b* des Silbers (Ravel, *a.a.O.*, S. 23) über die Fläche des Kopf- und Kitharabildes beider Münzseiten hin nahezu ganz überzogen! Die übrigen 4 als falsch verworfenen Stücke des Schatzfundes in dieser Weise abzubilden ist nicht möglich – aber auch kaum nötig. Wie die als Beispiel gewählte Gegenüberstellung, so ergäbe auch die der 4 anderen Exemplare, mit welcher der 28 übrigen Tetradrachmen des Fundes man sie auch immer vergleichen würde, stets dasselbe Bild gleichartiger *surface reticulée*, wie es auch sonst bei vielen in Makedonien gefundenen Münzen – jedoch nicht bei allen und nicht nur bei makedonischen Funden – beobachtet werden kann.

Wird dieser nur an den gemeinsam gefundenen Originalen, nicht an Abgüssen oder deren Photographien, zu führende Echtheitsnachweis der 6 Olynthus-Fundstücke mit dem Magistratsnamen DIKAIOΣ anerkannt, so bleibt wohl auch für die übrigen 5 von H. Gaebler, *a.a.O.*, S. 9, unter Nr. 8 aufgeführten, aus den gleichen Stempeln wie die Olynthus-Stücke geprägten DIKAIOΣ-Tetradrachmen kaum ein Zweifel an deren antikem Ursprung. Die Prägung mit diesem schlechten Stempelpaar ist ein Beispiel *κατ' ἔξοχήν* für die Tatsache, dass es auch im 4. Jahrhundert v. Chr. Stümper in der Kunst des Münzstempelschnitts gegeben hat. Auf Grund von Stilkriterien allein ist es nicht möglich, ihre Produkte als modern zu verwerfen oder als antik anzuerkennen. Heute sind wir wenigstens in der Numismatik so glücklich, hierfür exaktere Methoden anwenden zu können, die uns dann auch vor weiteren Irrtümern bewahren: Ist nämlich die Kithara der 6 DIKAIOΣ-Stücke von Olynthus (und infolgedessen auch die der übrigen, mit demselben Stempel geprägten 11 Exemplare) antik, so wird es zunächst möglich, dass die bei Gaebler, *a.a.O.* auf Tafel III unter Nr. 12 und 13 als Falsifikate abgebildeten Chalkidike-Tetradrachmen ebenfalls antik seien. Mit dem Vorbehalt notwendiger Autopsie möchte ich die Frage aufwerfen, ob bei der Jameson-Tetradrachme, Abb. 12, nicht einfach ein zweites Exemplar aus dem gleichen Stempelpaar wie Tafel III, Abb. 11 (Text S. 844, C) vorliegen könnte? Liesse sich auf diese Weise jenes auf beiden Stücken vorhandene "winzige Zufallsprodukt auf dem linken Kithara-Arm gegenüber dem rechten Basisstrich des Ω" nicht natürlicher erklären? Dann allerdings wäre dieser kleine Stempelfehler eher ein schlüssiges Beweismittel für die Echtheit dieser Münze als für die Entlarvung eines überraffinierten Fälschers. Für die Herstellung eines einzigen Exemplares hätte sich der Einsatz solch ausserordentlicher, von H. Gaebler mit Recht besonders hervorgehobener Befähigung (*a.a.O.*, S. 845) überdies kaum gelohnt. Dass nach diesen Ausführungen "Unwissenheit hinsichtlich des Konstruktionsprinzips der Kithara" und kleinliche Zeichnung des Kopfes der Münze, Gaebler, *a.a.O.*, Nr. 9 (Tafel III, 13) allein zur Verdächtigung der 4 unter dieser Nummer aufgezählten chalkidischen Tetradrachmen gleichen Stempels nicht aus-

reichen, liegt auf der Hand. Jedoch bedarf es zum Nachweis ihrer vermutlichen Echtheit natürlich der Untersuchung der Originale. Lediglich bei dem vereinzelten Stück, Gaebler, *a.a.O.*, Nr. 10 (Tafel III, 14) scheint selbst diese Bemühung überflüssig: Die Plumpheit seiner Zeichnung, die hier überall greifbaren Missverständnisse bei der Kithara, die miserablen Buchstabenformen etc. springen wohl jedermann in die Augen und erweisen dieses rohe Stück als die einzige sichere Fälschung der Chalkidike-Tafel III.

Schliesst man nun von dem klaren Echtheitsbefund der 6 als falsch verworfenen DIKAIΟΞ-Tetradrachmen des Silberschatzes der Kampagne von 1931 auf die übrigen bei den Olynthos-Grabungen ans Licht gekommenen, von H. Gaebler ebenfalls für eingeschmuggelte Fälschungen erklärten Münzen zurück – so ergibt sich aus der Rehabilitation dieser 6 Stücke jetzt noch ein neues Indizium für die Echtheit auch jener vier schon oben besprochenen Prägungen. Als gut beobachtete Fundmünzen legen dann alle diese im Olynthos gehobenen Stücke auch für die Echtheit einer Anzahl anderer von gleichen Stempeln oder verwandtem Typus aus öffentlichem und privatem Besitz in positivem Sinne Zeugnis ab.

Könnte H. Gaebler die von ihm als Fälschungen verworfenen Fundmünzen der amerikanischen Olynthos-Grabung im Original untersuchen und im Zusammenhang ihrer Mitfunde studieren, so würde ihr antiker Ursprung von dem verehrten Altmeister der makedonischen Münzkunde¹ gewiss anerkannt werden.

W. SCHWABACHER

ATHEN

¹ Siehe besonders: "Zur Münzkunde Makedoniens I-X" in *Zeitschr. f. Num.* 1897–1929. *Die antiken Münzen Nordgriechenlands III*, 1 und 2, Berlin, 1912 und 1935. "Die Münzen von Stagira," *S. B. Berlin Phil.-hist. Kl.* 1930, S. 19.

NOTES ON SOME INSCRIPTIONS OF DELOS¹

ON A visit to Delos in May, 1937, I took squeezes of the two following inscriptions from the Terrace of the Syrian Gods. The first, hitherto unpublished, will appear as No. 2260 in the forthcoming fascicule of *Inscriptions de Délos*. I am greatly indebted to M. Pierre Roussel, one of the editors of that volume, for kind permission to publish my reading of the stone.² The critical notes give the reading of the French editors, where this differs from mine.

1. Inv. E 541. A marble block, broken at the bottom. At the top, on the front and sides, there is a moulding, 0.08 m. high. The back is rough-picked. The top surface is cut at the back for some sort of attachment. The inscribed surface is very badly weathered.

Height, 0.40 m.; width, 0.20+m.; thickness, 0.19+m. (slightly thinner at top).
Height of letters, 0.014–0.017 m.

Βερενίκη ὑπέρ το[ῦ]
νιοῦ Διογένου Ἀφρο-
[δίτ]η 'Αγνῆ [ε]ὐχήν·
ἐπὶ ιερέως Μηνο-
5 δ[άρου] τοῦ Μηνο-
[δώρ]οις ἐγ Μυρρούτ-
[της, ξ]ακορε[ύ]ο(ν)τος
[Ἀλεξάνδρου τοῦ Μη-]
[νοδώρου.]

Roussel and Launey indicate an initial missing line, but the space (about 0.07 m.) between the moulding and my line 1 bears no trace of letters, and, with the reading Βερενίκη, no lacuna need be supposed.

L. 1. Βερενίκη[τοις?]. My squeeze shows room for no more than two letters after the NI.

L. 3. δ[ίτη] 'Αγνῆ εὐχήν.
L. 4. ἐφ' and no other letters dotted. The ΤΤ is quite clear in the squeeze.
L. 5. δ[άρου] τοῦ Μην[ο-].
L. 6. [δάρου] τοῦ Μυρρούτ-. Part of the Τ is visible and I see no room for more than one Ρ in the deme name.

L. 7. [της, ξακορεύοντος? In the squeeze there is no room for a Ν, which must have been omitted by an error of the engraver.

A Βερενίκη Νικίου contributed to the building fund for the theatre of the Syrian

¹ The following abbreviations will be used in this article:

B.C.H. = *Bulletin de Correspondance Hellénique*.

C.E. = P. Roussel, *Les Cultes Égyptiens à Délos du IIIe au Ier Siècle av. J.-C.*, Paris-Nancy, 1915–1916.

D.C.A. = P. Roussel, *Délos Colonie Athénienne*, Paris, 1916.

² I wish also to thank Dr. Lucy Shoe for much assistance in deciphering the squeeze, and N. M. Condoleon, Epimelete of Antiquities at Mykonos, for re-examining the stone and supplying me with certain supplementary readings, notably in line 7, and measurements.

Sanctuary (*D.C.A.*, p. 416, 21 B, col. ii, 4), and the name Διογένης occurs five times in the inscriptions of the cult, but identification with any of these previously known persons is impossible. The name of the priest (for whom cf. *D.C.A.*, p. 264) seems certain, even though at the beginning of line 6 there is barely room for the ΔΩΡ which must be supplied. It is possible that the engraver omitted a letter by error, as happened in line 7. For the form ἐγ Μυρωόττης (with only one Ρ), cf. *I.G. II-III*, 3478, an Attic inscription of the second half of the second century B.C. For the name of the ζάκορος, cf. *B.C.H.* xxxii, 1908, p. 428, 36.

2. Fragment of an inscribed Doric capital of white marble, from the Portico of the terrace. Lines 1-3 are on the abacus, line 4 on the echinus.

Height of abacus, 0.065 m.; width of fr., 0.09 m.

Height of letters, 0.013-0.015 m. ΑΤΣ Apices.

ΟΥΤΑΕ
γυναικὸς καὶ
τὸν κίονα
χαριστήριον

Of the capital-inscriptions published, that which most closely corresponds is *D.C.A.*, p. 413, 9 (E 738), which I was unable to find. The present inscription is possibly a fragment of this, but, if so, the first line has remained unpublished. The only suggestion that I can make for its completion is [δ δεῖνα τοῦ --]ον Παε[θνιος, an Egyptian ethnic which occurs in *C.I.G.* 3, 4915, d, Add.

The following notes present a number of new readings and corrections for certain inscriptions, chiefly from the cult of the Syrian Gods, at Delos. They were compiled in the course of two visits to the island, in May, 1936, and May, 1937.

1. *B.C.H.* vi, 1882, p. 490, 2. (E 432)

In line 8, the engraver originally made a mistake, omitting either the Λ or the Α of ΓΑΥΚΙΟΥ. In making the correction, he did not entirely obliterate the earlier letters, with the result that under the present letters from Λ to Κ of the name are visible traces of the earlier Λ (or Α) Υ and Κ.

At the end of line 12, part of the Ω, unmistakable here because of its peculiar shape in this inscription, can be seen.

2. *B.C.H.* vi, 1882, p. 491, 4. (A 1028)

Roussel, *B.C.H.* xxxii, 1908, p. 380, n. 5, re-read and completed ll. 13 ff., of which Hauvette-Besnault had deciphered only a few letters, as follows:

καὶ τῶν [ἐπὶ τὰ]
ιερὰ Ἀρκέτον Κυ[δαθη]—
[γαέ]ως καὶ Ἐστι—
[αιον ἐκ Κεραμ]έω[ν]¹

The inscription is dated, ll. 3-5, in the archonship of Dionysios, 112/11 B.C. Hes-tiaios, the Temple Administrator (δ ἐπὶ τὰ ιερά), was identified, quite plausibly it

¹ On the basis of the few letters given in the original publication, and by comparison with the inscription from the MS of Cyriacus of Ancona, published *B.C.H.* i, 1877, p. 88, 37, K. Schumacher, *Rhein. Mus.* xlvi, 1887, p. 316, had already anticipated this restoration of Roussel's.

seemed, with 'Εστιαῖος [Θεοχ]άριδος ἐκ Κε[ρ]αμέων, known from *I.G.2 II-III*, 2336, ll. 134-5, as στρατηγὸς ἐπὶ τὰ ὅπλα in the archonship of Theodosios, twelve years later.

From my examination of the stone, however, I was able to read in the last line the letters ΗΕΩΣ. The Σ is perfectly clear and the Ε is preceded by a vertical stroke. The restoration [ἐκ Κεραμ]έω[ν] could not, therefore, be correct.

Roussel has himself published an inscription,¹ in which the annual Temple Administrators are named, ll. 10-11, as follows:

[Αρ]κέτον Κυδαθηραικός καὶ 'Εστιαῖον Αλαιέως.

That this inscription is likewise to be dated in the archonship of Dionysios is conclusively proved by the appearance in both inscriptions of the same priest of Aphrodite Hagne, of the same epimelete, and of Arketos as one of the two Temple Administrators. It follows clearly that the Hestiaios in both inscriptions is the same. For [ἐκ Κεραμ]έω[ν] we must therefore read [Αλαιέως].

The same correction should also be made in the other documents which name the Temple Administrators of this year. They are, so far as I know, only two, and in both the deme of Hestiaios has been supplied: *C.E.*, p. 150, 125 (= *B.C.H.* i, 1877, p. 88, 37), l. 8: 'Εστιαῖον [ἐκ Κεραμέων]; *C.E.*, p. 154, 132 (= *B.C.H.* xxxii, 1908, p. 442, 68), l. 6: 'Εστιαῖον τοῦ Θεοχάριδος [ἐκ Κεραμέων].

The original false identification was a natural error, which by acceptance in Kirchner's *Prosopographia Attica* received the seal of authority. It was undoubtedly a simple oversight on the part of M. Roussel, to whom we are so much indebted for all our knowledge of Delos, that in the same work in which he published the inscription giving the correct deme, he should maintain in his catalogue of Temple Administrators (p. 143) the old accepted name and so perpetuate the error.

3. *B.C.H.* vi, 1882, p. 493, 8.

This fragment, originally published separately, is one of three fragments of A 1531. Roussel edited the entire inscription in *D.C.A.*, p. 412, 8, without however noting the earlier partial publication. In regard to the varying readings given in the two publications, I made the following observations:

L. 1. At the present time there remain only scanty traces of the first three letters of *τεπεύς*, seen by Hauvette but bracketed in *D.C.A.*

L. 2. The first three letters (ΟΥΤ) of this fragment are no longer visible, but at the end of the fragment there are traces of the Α (second Α in 'Αθηραιων), which Roussel brackets.

L. 3. Part of the Α of 'Απολλωνίου, bracketed in *D.C.A.*, remains.

L. 4. The ΕΙ of 'Αγνεῖ, which Roussel supplies, are preserved.

L. 5. The fragment is broken here so that only the tops of the letters, including, however, the Η bracketed in *D.C.A.* and the Ν which appears in neither publication, remain.

It may also be noted here that on one of the other fragments of A 1531, more than half of the second Ο in the name Εόρημον in line 6, supplied in *D.C.A.*, is preserved.

¹ *D.C.A.*, p. 414, 16. (E 478).

4. *B.C.H.* vi, 1882, p. 495, 12. (A 1011)

Ll. 1-2. The stone has $\text{IEPO}|\text{ΠΤΟΛΕΤΗΣ}$, not $-\pi\omega\epsilon\tau\eta\varsigma$ as published.

5. *B.C.H.* vi, 1882, p. 496, 13. (E 389)

POY was unnecessarily supplied at the end of line 14, as it appears in the following line on the stone, thus:

HNAPIΣΤΑΡΧΟΥΤΟΥΙΣΙΔΩ
vac. POY vac.

6. *B.C.H.* vi, 1882, p. 497, 14. (A 1476)

L. 2. At the end of the line read $\Pi\Delta\Delta$. The Δ , of which only the first stroke is shown in the publication, is completely preserved.

7. *B.C.H.* vi, 1882, p. 497, 15. (E 398)

L. 2. The stone has $\text{EK} \text{ΤΩΝ} \Delta\Omega\text{Ν}$, not $\epsilon\kappa \tau\hat{\omega}\nu \iota\delta\iota\omega\nu$ as published.

8. *B.C.H.* xxxi, 1907, p. 335, 1.

L. 4. The publication has $\epsilon\alpha[v]\tau\omega[\hat{v}]$. The final Υ actually appears clearly on the stone.

9. *B.C.H.* xxxii, 1908, p. 428, 36.

L. 1. The stone has ΑΓΝΗ , not 'Αγνή as published.

L. 3. The left upper part of the Υ in $\tau\omega\hat{v}$, supplied in the publication, is visible on the stone.

10. *B.C.H.* xxxii, 1908, p. 430, 42.

If this inscription really belongs to the Syrian cult,¹ or, as Roussel suggests,² to some association under the patronage of Aphrodite Hagne, a possible restoration of ll. 1-2 is — $\epsilon\alpha\pi\chi\iota|\zeta\alpha\pi\phi\eta\varsigma$. This title, not otherwise known, occurs several times in the extant inscriptions of the Syrian cult,³ while $\alpha\pi\chi\iota\theta\iota\alpha\sigma\iota\tau\eta\varsigma$, which Roussel tentatively proposed, does not.⁴

11. *D.C.A.*, p. 411, 4. (E 544)

L. 2. The stone has ΑΔΑΔΩ , not 'Αδάτω as published.

12. *D.C.A.*, p. 411, 5. (A 1269)

A number of letters can be read on the stone in addition to what was published by Roussel.⁵ I give the full text, with the new readings and supplements shown with a line beneath.

¹ The priest named here, $\Theta\epsilon\delta\delta\sigma\sigma\varsigma$ $\Delta\iota\delta\delta\omega\varsigma$ $\Sigma\omega\mu\iota\epsilon\varsigma$, is known to have been priest of the Syrian cult (*D.C.A.*, p. 264), but this does not exclude the possibility that at some other time he held a different priesthood.

² *D.C.A.*, p. 255, n. 6.

³ *D.C.A.*, p. 416, 21, A 17 and A col. iii, 33; p. 420, 24, l. 12 and 25, ll. 6-7; p. 421, 27, ll. 10-11; cf. *C.I.G.* 2, 2322 b¹³. Add. The word is cited in the new *Liddell and Scott*, but no etymology is attempted. Dr. Moses Hadas has kindly written me that $\zeta\alpha\pi\phi\eta\varsigma$ is probably derived from the Syriac $y\ a\ s\ \bar{u}\ ph\ \bar{a}$ ($\sqrt{y\ s\ ph}$), meaning "superintendent" or "guardian," and that the word is perhaps the equivalent of $\epsilon\pi\omega\tau\alpha\tau\eta\varsigma$ or $\epsilon\pi\omega\lambda\eta\tau\eta\varsigma$.

⁴ We do, however, hear once of $[\tau\hat{\omega}\nu \theta]a\sigma\iota\omega\varsigma$ 'Αγνή 'Αφροδίτη , *B.C.H.* xvi, 1892, p. 161, 22 and *D.C.A.*, p. 255 and n. 5, apparently a private group under the leadership of a $\sigma\omega\pi\gamma\omega\gamma\epsilon\varsigma$.

⁵ The copy of this inscription in the old hand-written catalogue of the Delos Museum has most of these additional letters.

Λεύκιος — —
 Γαῖον Ῥωμαῖος ὑπ[έρ]
 [έαν]το[ῦ κ]αὶ τῆς γν[υπατ]—
 [κὸς] — — καὶ τῶ[ν τέ]—
 [κν]ων — —
 εὐχὴν.
 [έφ'] ιερέως Μαρίωνος
 τοῦ Ἀχαιοῦ Ιεροπο[λιτου].

Merely from the names Lucius and Gaius, it is impossible to identify the dedicator. From the available names in Hatzfeld's prosopographia of Italians resident in Delos,¹ that which best satisfies the demands of space and chronology is perhaps Λεύκιος Οὐηράτιος Γαῖον (p. 90), but this is simply a possibility.

13. *D.C.A.*, p. 413, 10. (A 1480)

L. 2. The stone has ΑΥΤΟΥ, not έαν[τ]οῦ, as published.

14. *D.C.A.*, p. 413, 12. (E 238)

L. 2. The stone has ΕΑΥΤΩΝ, not αὐτῶν, as published.

L. 2. For θυγατέ[ρος] read ΘΥΓΑΤΡΟΣ. The letter following the Τ is definitely Ρ, not Ε, and the Ο and most of the Σ can be seen.

15. *D.C.A.*, p. 420, 26. (A 1554)

L. 12. The stone has ΑΓΝΗ, not 'Αγνῆ as published.

16. *D.C.A.*, p. 422, 29. (E 597)

L. 12. By error, the engraver wrote ΦΙΛΑΛΕΛΦΕΩΣ. The Λ for Δ is certain.

17. *D.C.A.*, p. 423, 35. (E 602)

L. 3. The article, Η, before the word κανηφόρος is omitted in the publication.

18. *D.C.A.*, p. 425, 40. (E 598)

L. 1. The stone has ΑΓΝΗ, not 'Αγνῆ, as published.

Not from the Syrian Sanctuary

19. *Mélanges Holleaux*, p. 205, 2. (E 779)

L. 3. The stone has ΥΥΙΣΤΩΙ, not 'Υψιστω as published.

20. *Exploration Archéologique de Délos*, II, p. 61, 4 (= *B.C.H.* xxxiii, 1909, p. 517, 38). (E 25)

Ll. 1-2. The stone has ΙΕΡΟ|ΠΤΟΛΙΤ, as can be seen in the photograph, p. 61, Fig. 86. Whether the oblique line after the Τ is a flaw in the stone or an intentional cutting, I could not be sure, but there is no room for a Η, as published, between the Τ and the beginning of the next word.

FRANCIS R. WALTON

¹ *B.C.H.* xxxvi, 1912, pp. 5 ff.

TWO ROMAN SILVER JUGS¹

PLATES XIII-XV

GENERAL enthusiasm was aroused in 1830 when a peasant excavated near Bernay in Normandy a great silver treasure of classical date—the first found in modern times. Two vessels of the hoard, a pair of jugs richly embossed with mythological scenes in relief (Plates XIII-XIV), were especially admired. For years, however, they were regarded merely as important illustrations of the tradition of classical mythology, nor have they as yet received their due place in the history of art, in spite of Babelon's excellent publication² of the treasure as a whole. It is therefore important to examine them once more as outstanding examples of ancient toreutics,³ important for the richness of the iconography of their scenes, as well as for the excellence of their quality.

The jugs formed part of a votive deposit in a sanctuary of Mercurius Canne-tonensis, a shrine which was in use from the Augustan age to the fourth century A.D.⁴ The burial of the treasure probably occurred at the time of a barbarian invasion about 275 A.D., so that the objects found in it must all date before that year. The stylistic evidence agrees with the dating. The greater part of the deposit clearly belongs to the second century A.D.: a votive inscription with a name of that period was included in the lot (No. 17),⁵ and one of the vases, obviously executed at Ephesos under the influence of the reliefs of the Scopasian column, must belong to the time of Hadrian (No. 18). The votive gifts of Germanissa (Nos. 24, 25) and two other pieces (Nos. 15, 16) are of provincial Gallo-Roman style of the second century A.D., and one of these last might be termed a prototype in silver of the "barbotine" vases with hunting scenes, so typical of the *terra sigillata* of this period.

Other pieces, on the other hand, must be earlier. The vases of prime importance in this earlier group, and indeed in the whole treasure, were nine given by Quintus Domitius Tutus. Two of these are the jugs described below, Pls. XIII-XIV. The votive inscriptions were a later addition⁶: the vessels were originally made for profane use, partly for table plate. The jugs, however, must always have been intended merely for display, as they lack the inner lining, found in vases meant for practical use.⁷ It is difficult to date the vases. Jugs of this kind could have been used over a

¹ I wish to express my most sincere gratitude to Miss M. Z. Pease for her valuable assistance in revising the English of this paper. To the editor I owe gratitude for bibliographical references.

² E. Babelon, *Le Trésor d'argenterie de Berthouville*, Paris, 1916. See also Courby, *Vases grecques à reliefs*, p. 311; K. Bulas, *Les illustrations antiques de l'Iliade*, Lwow, 1929, pp. 68, 92, 102. One of the jugs has been reproduced by Gusman, *L'Art décoratif de Rome*, pl. 47.

³ A useful survey of toreutic works from the early Roman Empire has been given by Mrs. E. Strong, *Art in Ancient Rome*, II, p. 37 (with bibliographical notes). It is not necessary to discuss the authenticity of some pieces, as it is not important for the following discussion. The silver goblets from Hoby I am unable to judge, since I have not seen the originals. They belong in any case in an artistic sphere very different from that of the Bernay vessels. For the irritating problems of the Hoby vases see: *R. Arch.*, 6 sér., 9, 1937, pp. 259 ff. Compare, however: *Kunst og Kultur*, II, 1923, pp. 240 ff.; *Acta Archaeologica* i, 1930, pp. 272 ff.

⁴ Babelon, *op. cit.*, pp. 46, 55.

⁵ *Ibid.*, p. 54.

⁶ *Ibid.*, p. 49.

⁷ *Ibid.*, p. 67.

long period of time, and we know from literary sources besides that precious work in metal was preserved for a number of centuries; yet the gifts of Tutes as a whole show no very great stylistic differences. Some of them must necessarily be dated before 79 A.D., because of their obvious similarity to vases found at Pompeii,¹ and none of the pieces bears characteristics of later origin. One of the goblets has scenes of the Isthmian games, a subject especially popular in the age of Nero, and its style agrees with that of Nero's time. Others resemble vessels (of the genuineness of which there can be no doubt) of the Boscoreale treasure. This treasure belongs essentially to the time of Augustus and Tiberius. The scheme of decoration of the Bernay jugs, with the main scenes on the sides and a secondary one applied to the neck, may also be seen on a jug of another form from Boscoreale (Pl. XV A).² The shape of handle, foot and mouth are also similar in this case to those of the Bernay jugs. No tectonic line exists between the main scenes and the foliated calyx below and a narrow ornamental frieze divides the main scenes from the relief on the neck. For this latter, compare further a bronze jug in the Louvre, also from Gaul (Pl. XV B),³ more like the Bernay than the Boscoreale vase, but with more precisely accented outlines and different mouth and handle. From the similarity of its figures to those on Arretine vases, the vase can hardly be dated later than the time of Tiberius. For the decoration with a main scene and a relief on the neck, see as well the sacrificial jug on the frieze of the temple of Vespasian.⁴ Though the simple circular form of the mouth is different, a jug from the Hildesheim treasure also has points of likeness with the Bernay jugs (Fig. 1),⁵ for instance certain very similar details in the ornamental decoration of the lip, the frieze below the neck, and the general outlines of the vase. Other details, however, are clearly of a different style: the mask under the handle is strongly modeled and set off distinctly from the surface of the vase, in contrast to those of the Bernay jugs, which are not plastically distinguished from the surface of the vases, but tend to fuse with it. The neck itself is undecorated. In the Augustan vase the details are more definite, sharper and more exact, and reveal a love of clear accentuation and distinction of single parts and decorative elements. Hence the lack of decoration on the neck, and the tightness and elegance of the out-

¹ Babelon, *op. cit.*, pp. 54, 88.

² Froehner, *Musées de France*, pl. 17; De Ridder, *Bronzes antiques*, II, n. 2765, pl. 99 (also for further examples of the shape) and *Not. Scar.* 1929, p. 196, fig. 5, from Pompeii. The jug from Egged (Moeller, *Metallkunst*, pl. 39) belongs in its style, which has certain Egyptian elements, to a somewhat earlier time, and in its shape and decoration to Hellenistic tradition. Compare *Collection J. Gréau, Bronzes*, n. 188. For the representation on the jug from Coudrieu, see Zahn, *Amtliche Berichte*, 1914, p. 303.

³ Strong, *Scultura Romana*, I, pl. 27; Gusman, *op. cit.*, pl. 66.

⁴ Pernice-Winter, *Der Hildesheimer Silberschatz*, p. 46, where already the analogy of the ornamental frieze beneath the neck has been mentioned.



FIG. 1.—SILVER JUG FROM
HILDESHEIM
(After Pernice-Winter)

⁵ *Monuments Piot* v, pls. 4-5.



FIG. 2.—TERRACOTTA JUG AT MAGONZA,
FROM ITALY

treasure were dedicated without exception by Romans, and the vessels of obviously

¹ Inv. O, 1802. Height: 0,225 m. From Italy. Our illustration is taken from a photograph kindly provided by the administration of the Museum. For especial assistance, I wish to express my gratitude to Dr. Schnellenkamp of the staff of the Museum.

² Nos. 13–14: compare with nos. 8–9.

³ The shape of our jugs is found in archaic times, especially in the class of bronze vases discussed by Neugebauer, *Röm. Mitt.* xxxviii–xxxix, 1923–24, p. 341. See also Filow, *Die Nekropole von Trebenische*, pp. 59 ff., pl. 10; Keramopoulos, *Arch. Eph.* 1927–28, p. 78. For the shape see *Musée Lavigerie*, I, pp. 200 ff., pl. 29. For more recent examples with different proportions: Magonza, Central Museum Inv. O 2274 (from Olbia), late fourth century B.C.; silver jug at Nîmes, Espérandieu, *La Maison Carrée*, Nîmes, pl. 49, probably first century B.C. It would be useful to compare representations of sacrificial jugs on Roman reliefs, especially those on sacrificial altars. But the careless execution, as well as the lack of good reproductions has so far allowed no conclusions to be drawn. Moreover, these jugs are generally distinguished by a sharp break on the shoulder. We may mention, however, a jug represented on the arch at Orange (Espérandieu, *Recueil*, I, p. 201), which bears a certain similarity to our jugs. The jugs on the Caffarelli sarcophagus, still with the undecorated necks and precise form, follow the Augustan tradition (Rodewaldt, *83. Berl. Winck. Progr.*, Figs. 13–14). Both jugs on the sarcophagus show certain differences of taste, which are due to the fact that the single faces of the sarcophagus were apparently executed by different sculptors.

lines. A terracotta jug in the Central Museum at Magonza (Fig. 2),¹ imitating a Roman sacrificial jug, with its white surface decorated only with plastic ribbons and with the oblique mouth characteristic of the shape on Roman monuments, is another example of the style of the time. Two Augustan kantharoi in the Bernay treasure show a like contrast, when compared with vases of the same shape dedicated by Tutus.² Thus, when opposed to their predecessors, the jugs from Bernay display a tendency toward heavy, projecting, baroque outlines and greater and more crowded richness of decoration, while the parts of the vase tend to amalgamate with the sides and not to stand out separately. The Boscoreale jugs and the jug in the Louvre form a bridge between the two extremes.³ One seems justified, consequently, in dating the Bernay jugs in the reign of the emperor Claudius and the whole complex of offerings by Tutus within the limits of the Claudian-Neronian age.

These vases, then, were the work of a Graeco-Roman silversmith, of the middle of the first century A.D., and they must undoubtedly have been imported into Bernay from the South. One finds on investigation

provincial style only by (Romanized) Gauls.¹ The earlier vases (which include our jugs) evidently were brought to Gaul by their Roman dedicators from Italy, and, to judge from the style, probably from Campania.

Furthermore, the two pendant jugs are without doubt the work of a single artist, in spite of certain apparent artistic differences between the two vases. One (the jug with Achilles' Mourning and the Ransoming of Hector, Pl. XIII) is calmer, lighter and more elegant than the other (Pl. XIV). The difference in effect is one not only of style and subject, but of arrangement of the decoration in relation to the shape of the vase. Although on the necks of both vases the artist has opposed two figures on either side of an altar, he has renounced formal correspondence in the main scenes. On the one jug (Pl. XIII A), the scene of the Mourning Achilles is centered on the central axis of the lip and the Ransoming of Hector (Pl. XIII B) on the mask under the handle, while on the other (Pl. XIV) the scenes end at the central axis and below the handle. The Dragging of Hector's Corpse (Pl. XIV A) and the Death of Achilles (Pl. XIV B) both had architectural backgrounds, which would have been disturbed by the lower end of the handle and the mask, but on the other vase (Pl. XIII) the mask was easily combined with the great scales at the center of the ransom scene, thus gaining much valuable space by this axial arrangement. That the artist needed space is evident from the crowding of the figures at the right end of the Lytra picture (Fig. 3), and from the fact that in the scene of the Dragging of Hector on the second jug, the action was extended beyond the central axis: a figure has even been left out at the right (see below, p. 96). The silversmith obviously copied the scenes from other models and applied them as best he could to the vases. This accounts for differences in style: they were already inherent in the originals. The copyist was an artist who faithfully preserved the general stylistic features—but on occasion sacrificed historical truth to decorative effect, as is evident in one of the scenes (the Doloneia) on the neck of one jug (see below, p. 101). And in two or three cases he transposed details rather irrelevantly. In the Theft of the Palladion, for instance, Diomedes wears the type of helmet worn by a Trojan in the Death of Achilles, although he has no right to it: crowned with the head of a bird of prey, it is of Thracian origin,² and therefore barbarian, not Greek. The dying Achilles himself is portrayed as bearded, contrary to all post-archaic tradition in Greece. The author of the vases must have been an uneducated but skilful craftsman, the reliability of whose copies, strangely enough, rests on those very differences in style that at first sight so confuse the spectator.

The originals of our vases were probably also of metal. It will be recalled that Dubius Avitus, proconsul of Gaul from 54 to 56 A.D., ordered copies of two silver goblets, works of the famous Kalamis, to be made by the sculptor Xenochoros, who was living at that time in Gaul.³ The representation of epic subjects in metal was much in favor.⁴ Suffice it to mention here the "Homeric" goblets of Nero (Sueton., *Nero*, 47) and the modest "Homeric" vases of terracotta, with their obvious relation to Hellenistic originals in metal. Even in the time of Pheidias, Mys

¹ Babelon, *op. cit.*, pp. 48 ff. ² Schroeder, *Jb. Arch.* I. xxvii, 1912, Beil. II, n. 3 and p. 336.

³ Pliny, *N.H.* 34, 47; Babelon, *op. cit.*, p. 65; Lippold, *R.E.*, s.v. *Kalamis*, p. 1536.

⁴ See Babelon, *op. cit.*; Courby, *op. cit.*, pp. 311 ff.



FIG. 3.—SCENES FROM THE FIRST JUG FROM BERNAY
(After Babelon)



FIG. 4.—SCENES FROM THE SECOND JUG FROM BERNAY
(After Babelon)

decorated with scenes from the Iliupersis a metal cup which had been designed by Parrhasios.¹ The fact that a Hellenistic sculptor, Pytheas, is known to have applied the scene of the Theft of the Palladion to a silver bowl, sold later for a very high price at the art dealer's, is also of interest to us: the "Theft" is the subject treated on one of our jugs.

A stylistic analysis of the jugs is complicated by the fact that the metal prototypes from which our vases were copied had themselves been copied from earlier monuments. On the other hand, our jugs increase in importance if through them we can obtain an idea of the originals, as copies in terracotta were often inexact or much simplified, and stylistic variation in extant monumental copies has always distressed scholars who have tried to restore classical originals through later versions in sculpture or painting. In the scenes on the Bernay jugs we see copies of workmanship good enough to be exact and yet with no attempt at originality on the part of the artists. It will become clear during the following analysis that some of the artists who executed such metal vases on occasion intentionally avoided any mixture of the originals with their own style.

It is perhaps best to dwell for a moment on the general idea behind the artist's selection of scenes. The subjects are chosen from the Trojan cycle and cover a considerable range. The Golden Age limited the number of its subjects: Polygnotos chose the Iliupersis and the Nekyia for his frescoes in the Lesche at Delphi, and the narration of myths in long sequences of pictures is known only from Hellenistic times on. Theoros painted a cycle of the Trojan War in the Porticus Philippi at Rome in the third century B.C. (Plin., *N.H.* 35, 44). In the ship of state of Hieron II (about 200 B.C.) were mosaic pavements representing the entire tale of Troy (Athen., V, 200 ff.). Later, Vergil described an imaginary cycle, painted in the temple of Juno at Carthage, which showed among other things the battles around Troy and the events preceding the fall of the city, including the Dragging of Hector's body by Achilles (to be mentioned again below). The poet must have been alluding to actual works of art.² Other authors mention narrative sequences of the myths of Troy and the Odyssey (Vitruv., VII, 5; Petron., *Sat.* 29). A fragment of one of these is preserved in the paintings of the temple of Apollo at Pompeii. Of the five scenes that can still be identified, not less than three recur on our jugs (the Dragging of Hector's Corpse, the Ransom, and the Theft of the Palladion).³ For the Odyssey one has only to mention the famous series of frescos found in a house of the Augustan Age on the Esquiline. From the same period are preserved the scanty fragments of the "Trojan tablets," ordinary copies and travesties of monumental works of art, made for didactic use.⁴

The Hellenistic cycle sequence, inherited by Rome, formed the background for the choice of scenes on our jugs. The sequences were arranged not only in accordance with a principle of poetic unity, or in relation to a local setting: the person could

¹ Athenaeus, II, 782 b; Babelon, *op. cit.*, pp. 61 ff.; Courby, *op. cit.*, p. 314. For Pytheas, see Pliny, *N.H.* 33, 156; Jahn, *Annali* xxx, 1858, p. 232; Babelon, *op. cit.*, p. 60.

² For copies of these, see Bruening, *Jb. Arch.* I. ix, 1894, pp. 164 ff.; Bulas, *op. cit.*, pp. 77 ff.

³ Overbeck-Mau, *Pompeji*, p. 103; Reinach, *Rép. peint.*, p. 168. For the painted and stucco friezes in the Nuovi scavi, see Bulas, *op. cit.*, pp. 121 ff.

⁴ Bruening, *op. cit.*, pp. 136 ff.; Haehnle, *Arretinische Reliefkeramik* (Diss.), Tübingen, 1915, p. 62.

form the ideal center as well. The illustrated biography was not invented before Hellenistic times: the list of single acts of a hero, so common from the late archaic period on, cannot be interpreted in this sense. Even the master of the Olympia metopes made no attempt to give a biographical scheme to his series of the labors of Herakles, although he did represent the hero in his first labor (the killing of the Nemean lion) as a boy. The idea of life as a continuous evolution from birth to death came only with the Hellenistic Age. The scenes on the necks of our jugs belong in the first classification, inspired by scenes such as a pair of pictures representing deeds of Odysseus and Diomede.¹ But the main scenes seem to have been derived from a great serial representation of the life of Achilles, such as the Telephos frieze on the altar at Pergamon. Although no other such complete "biography" now exists, that similar ones must have been created is proved by a whole series of historical "sequences" of the life of Achilles, produced from late classical to mediaeval times. The most detailed of these surviving is the one on the bronze chariot in the Capitoline Museum.²

Yet another principle, this time of a more speculative kind, decided the choice of scene. By the juxtaposition of the two main scenes on each of the vases, the spectator's attention is drawn to the contrasts of human destiny. On one of the jugs, Achilles is seen grieving over the corpse of his friend; in the next picture, he is triumphing over Hector's body, which, in turn, is mourned by the Trojans. On the other vase, he is dragging his slain enemy exultantly before the walls of Troy, under the eyes of the unfortunate parents, while in the scene next to this he himself is at the point of death and in danger of like disgrace. The *peripeteia* of human fate is the main thought behind these pictures. We remember that a Hellenistic poet (Lykophron, 269) ventured to change mythological tradition to permit the triumph of morality. Contrary to the fixed tradition of the *Odyssey*, he allowed the Trojans to capture the corpse of Achilles, so that the ransom for Hector should be returned to the city in recompense. The scenes on our jugs are contrasted with the same moral purpose; even the more strictly decorative scenes on the necks may be included in this category. On the neck of one vase Diomede and Odysseus are most amicably engaged together in the Doloneia, whereas on the other, although they are still together on an adventure of the same kind, their vehement quarrel is beginning. We know from other sources as well that moralizing precepts were illustrated even in monumental art. Attalos II ordered nineteen mythological pictures for the Stylopinakia of the temple of Apollo to illustrate a son's love for a mother. Some of the subjects represented are otherwise little known;³ but here, again, the correspondence of pairs occurred: to the liberation of Rhea Silvia was opposed that of Melanippe, while another picture representing the sons who carried their parents away from the eruption of Aetna was contrasted with a painting of Kleobis and Biton — all scenes of pairs of brothers.

The choice of scenes on our jugs is, therefore, inspired by true Hellenistic tradi-

¹ Pausanias, I, 22, 6. This passage is hopelessly corrupt. The most probable interpretation is that of Jahn, accepted also by Frazer, according to which Odysseus was the chief actor in the Palladion scene, Diomede was the main figure in the Philoktetes painting.

² Catalogue of Sculptures in the Palazzo dei Conservatori, I, pp. 68 ff. Other examples below.

³ Anthologia Palatina, iii; Klein, Geschichte der griech. Kunst, III, pp. 137 ff.

tion, and it seems highly probable that this was also the case with the metal prototypes copied by the Bernay artist, although certain problems connected with the relations of the two will first require further description and analysis.

On the side of the first jug, Achilles is seen mourning near the body of a friend (Pl. XIII A and Fig. 3). The simple rocky ground gives the setting. In the center is the dead man, with only the upper part of his body visible and his head hanging heavily backwards. On either side are the Achaeans, distributed in two relief planes and in strict symmetry, varied only by slight changes in attitude. Odysseus (behind Achilles) may be recognized by his *pileus*. The old man beside him and another bald-headed man seated at the right may be Nestor and Phoenix. The others must be nameless. The interpretation of the scene as the lamentation of Achilles for Patroclus (*Iliad*, XIX, 309 ff.) has been generally accepted. In the epic the noblest of the Achaeans pass the night with Achilles after his reconciliation with Agamemnon. These include, besides those mentioned, Agamemnon himself, Menelaos and Idomeneus. The number of people in the scene pictured here is sufficient to fit the description. On the other hand, the tent is the stage of the Homeric scene. We should expect too in this place, following the moral tendency of the narrative, a scene which would indicate an event after the Ransoming of Hector's body, rather than one preceding it.

Philostratos (*Imag.*, II, 7) describes a picture of Achilles mourning over Antilochos, in which the heroes are characterized by their attitudes. The similarity of the picture to our relief has already been commented upon by others:¹

"And the Achaeans, gaining possession of the body, lament Antilochos, both the sons of Atreus and the Ithacan and the son of Tydeus and the two heroes of the same name. The Ithacan is made known by his austere and vigilant look, Menelaus by his gentleness, Agamemnon by his god-like mien, while the son of Tydeus is marked by his nobility,² and you would recognize the Telamonian Ajax by his grimness and the Locrian by his alertness. And the army mourns the youth standing about him in lamentation; and, their spears fixed in the ground and their legs crossed, they stand, most of them in their grief bowing their sorrowing heads on their spears. You are not to recognize Achilles by his long hair, for that is gone since the death of Patroclus, but let his beauty make him known to you, and his stature, age and the very fact that he does not wear long hair. He laments, throwing himself on the breast of Antilochos. . . ."³

The description differs from our relief in many respects and undoubtedly was not inspired even by an earlier version of the picture, but several details are analogous and even identical, as in the case of the heroes leaning on their spears. The motive was one common enough in vase-paintings inspired by the pictures of Polygnotos and his followers in the second half of the fifth century B.C.,⁴ as the *Orpheus vase* in Berlin shows. Our whole scene is characteristic of the classical style: the severe and symmetrical composition, the clear relief, the isocephalic arrangement, the simple front or profile views. The extreme restraint with which grief is expressed

¹ Babelon, *op. cit.*, p. 84. This is not the place to discuss the character of the descriptions by Philostratos, which can be appreciated rightly neither as detailed and exact descriptions, nor as "rhetorical" inventions. They are serious literary experiments, intended to convey the impression of real works of art in the medium of language.

² Better, "frankness" (*λευθερία*).

³ Transl. by A. Fairbanks, Philostratus, *Imagines* (Loeb Classical Library), 1931, p. 157.

⁴ Furtwängler-Reichhold, *Griech. Vas.* 3, p. 109 = Loewy, *Polygnot*, p. 22; Furtwängler-Reichhold, *op. cit.*, pl. 60 = Loewy, *op. cit.*, p. 24.

only by slight variation in gesture corresponds to the complete lack of facial expression. In this, our relief differs much from the picture described by Philostratos, in which the influence of Hellenistic interest in character is plainly to be seen. The figures in our scene still are acting in the grand and reserved manner of classical art—that the severity of expression is not due to the silversmith is shown by the exaltation of the faces of Priam and Hecuba (Fig. 4)—and the subordination of the simple scenery to the figures is also inspired by the paintings of the circle of Polygnotos: the natural convolutions of the ground are used as bases for the seated and standing personages. Certain single motives arose early: in vases of the time of the Persian wars we see near the mourning Achilles the figure of a man seated and clasping his knee with both hands.¹ For the general pose we may refer again to the famous representation of Orpheus on the Berlin vase (n. 4, p. 89), and the motive of the clasped knee occurs on the Parthenon frieze and many times thereafter, down to the Ares Ludovisi. The reserved attitudes in the mourning scene are characteristic of monuments of the early fourth century B.C., and several other details are derived from that time.²

The Odysseus of our relief (Fig. 3) is unusual. He stands with one foot on a rock, covering his face with one hand, as the famous figure of Agamemnon mourning in the picture of the sacrifice of Iphigenia by Timanthes.³

Here a fundamentally exact copy of a great classical work is preserved. Although Philostratos' account must refer to a later version, with more developed rendering of physiognomical and psychological detail, it must yet have been influenced by the original reproduced on our jug. The very inadequate representation of Achilles and Patroklos on the "Tabula Iliaca" may quite possibly have been derived from the same original, for, though, like the other scenes on the tablet, it is only a poor excerpt, still the pose of Achilles is the same, and the corpse, in conformity with Homeric tradition, lies on a *kline*, at the head of which are two figures, one seated, the other standing in the background. A person at the left resembles the man in the background of our relief, and, while the attitude of the man behind the body is different, in that he is using the typical gesture of lamentation, he too is represented in frontal view.⁴

The Ransoming of Hector (Pl. XIII B and Fig. 3) has not been treated according to the Homeric story, but as in the *Phrygians* of Aeschylus, where the corpse is redeemed for its weight in gold (represented in our scene in the form of a great golden krater with volute handles). Thus the scene differs essentially from the many representations of the scene extant, which generally follow epic tradition⁵—and it,

¹ *Annali*, 1849, pl. I. Compare also Hermes on the kylix, Gerhard, *Griechische Vasenbilder*, 239—Hoppin, *Attic Red-Figured Vases*, s.v. *Makron*, p. 100. See also Bulas, *op. cit.*, pp. 5 ff., figs. 3-4; Johansen, *I Tidlig Greesk Kunst*, 1934, figs. 28-29.

² Loewy, *op. cit.*, pp. 59-62.

³ Compare Loewy, *Oest. Jahresh.* xxiv, 1929, p. 31.

⁴ Compare Bruening, *op. cit.*, pp. 149 ff., who in his excellent article, strangely enough, did not discuss the jugs from Bernay. Undoubtedly our scene is more closely related to the *Tabula Iliaca* than the sarcophagi with Meleager, which Bruening quoted.

⁵ Overbeck, *Griech. Kunstmethol.*, pp. 464 ff.; Helbig, *Annali*, 1868, pp. 241 ff.; Bruening, *op. cit.*, pp. 151 ff.; Pollak, *Ath. Mitt.* xxiii, 1898, pp. 169 ff.; Idem, *Oest. Jahresh.* ii, 1902, Beiblatt, p. 7; Bulas, *op. cit.*, pp. 23 ff., 65 ff., 96 ff.; Schober, *Oest. Jahresh.* xxiii, 1926, pp. 62 ff., 116; Wuilleumier, *Le Trésor de Tarente*, 1930, pp. 88, 97. For the goblet from Hoby, see Reinach, *Monuments nouveaux de l'art*

too, is a copy of a classical work. In spite of the crowding of the figures at the right (see above, p. 85) the composition has been laid out quite symmetrically, with the figures distributed on two planes; again, in the center, the corpse is seen in clear profile; to left and right Greeks and Trojans face each other; next to the corpse are Priam and Achilles. Notwithstanding the restraint of movement and expression, however, the scene dates from a later phase of artistic development than that of the first relief: the oblique views of the figures and the greater development of space are later features. Compare, for instance, the two seated figures of Achilles on our reliefs. Priam and his grandson beside him are at an oblique angle as well; even the scales are not parallel to the plane of the relief. Here the artist was unable exactly to copy individual details of his model: of the three ropes by which each of the scales must have been suspended in the original, only two may now be seen—a wholly improbable arrangement. The gesture of the Agamemnon of Timanthes reappears in the Trojan in the center of the background, although the gestures of the various figures are in the main more individual and vehement. A new element is the combination (in the Trojans) of facial expression with gestures to show grief. Very characteristic also is the tension in the figure of Achilles, who is represented in momentary excitement, as though wishing to jump up from his seat in rage at the mere sight of the hated murderer of his friend—sad as is Hector's present case. Only the presence of the circumspect and elderly Phoenix behind him moderates his fury, and he is controlling himself, clasping the edge of his shield with his left hand and the border of his garment with his right.¹ The opposition of Phoenix and Odysseus as advisers of Achilles follows the Aeschylean tradition, in which Nestor and Phoenix are made to support Priam against the avarice and mischief-making of Odysseus.²

The original of this relief can be dated about the middle of the fourth century B.C., by means of the more developed rendering of space, the psychological interest, the individuality of the figures and the beginnings of facial expression. The pose of Priam's grandson finds its nearest analogy on the sarcophagus of the mourning women from Sidon.³ Stylistically the picture is a precursor of the wonderful Pompeian fresco of Achilles surrendering Briseis, which undoubtedly was copied from a Greek original of the time of Alexander. Phoenix is present in the Pompeian painting as well, standing behind Achilles and calming his fury. The general composition of the painting shows a new feeling for space and compactness, still absent on our relief. Another indirect copy of the same original may be traced in the scenes

¹ *antique*, 2, 1924, p. 349 and above, p. 82, n. 3. For the Campana reliefs, see also *Not. Scav.* 1929, pp. 118 ff. An unrelated illustration of the scene is found on a South Italian relief krater in Berlin (Furtwängler, *Beschreibung der Vasensammlung*, n. 3884), of which I have obtained photographs through the kindness of Dr. Neugebauer. There exist, too, representations of the Aeschylean tradition, without formal relations to the scene on the Bernay jug: *Mon. Ist.* 5, pl. II=Overbeck, *op. cit.*, pl. 20, n. 4; Bulas, *op. cit.*, pp. 67 ff.; Robert, *Sarkophagreliefs*, 2, pl. 22, n. 47 c.

² This motive has been adopted also by the other (and current) iconographic type, which follows the Homeric story: Reinach, *Rép. Peint.*, p. 168, and frieze of the House of Lureius Tiburtinus (above, p. 87, n. 3). It has lost its original significance, however, since the body of the enemy, the sight of which irritates Achilles, is not visible.

³ Roscher, *Lex.* I, p. 42. Compare the vase-painting, Gerhard, *op. cit.*, p. 107, from the middle of the fifth century B.C., possibly inspired by the Aeschylean tragedy.

⁴ Hamdy Bey-Reinach, *Nécropole de Sidon*, pl. 9, fig. 1 (first woman on the right).

from the life of Achilles on a Coptic bowl in bronze, a late composition in which only the protagonists are preserved, with the central scales and the figures more general in conception (Fig. 5).¹

Thus the two main scenes on this jug are copies of stylistically different works of classical art of the fourth century B.C. A few changes in their original aspect—but none fundamental enough to obscure the very original style of the prototypes—may have resulted from the combination of the scenes in a kind of “antithetic sentence” on the same vase. In the representation of Achilles mourning by the body of his friend, the grand classical style of the original work of art seems to have been perfectly preserved. If we suppose the neighboring scene was executed by assimilation in the same style by the copyist, this would explain the absence of Achilles’ tent, naturally expected in a scene of this subject and style. To have represented it on our relief would have destroyed the balance of the two scenes united here. The epoch at which this combination probably took place will be discussed later.

Let us look now at the scenes with the same subject on the other jug. The rich iconographic material of the scene with the Dragging of Hector’s Corpse (Pl. XIVA and Fig. 4) makes it possible approximately to reconstruct the type and content of the original, and also to establish the relation of our copy to its model. The earliest representations of the scene on vase-paintings follow the Homeric tale in putting the action near the tomb of Patroklos.² On the other hand, the monuments of later Greek and Roman times (paintings, mosaics, reliefs, stamped lamps, and gems), inspired by traditions of Hellenistic art, usually are of a different type. This type was used even in such direct illustrations of the Homeric epic as the *Tabula Iliaca*. In the numerous copies of the later type, Hector is being dragged round the walls of the city, as in Vergil’s description of the picture in the temple of Juno at Carthage (*Aeneid*, I, 441 ff.), where he says that “Achilles is seen dragging Hector three times” (this, of course, in a flight of poetic fancy) “round the walls of Troy.” Bruening has already pointed out the undoubted existence of a famous original as the model of a great mass of later monuments with the scene in this form.³ He failed, however, to consider the picture on the Bernay jug, the best of the preserved copies in artistic quality, exactness and completeness.

The war chariot of Achilles rushes to the right, with its two famous horses urged on by the whip of Automedon, who bends agilely forward. Behind him on the chariot stands Achilles, in fighting pose. Dominating the scene by his great size,⁴ he brandishes his spear in his right hand and holds the large circular shield almost horizontally in his left, to protect his head from attack. The body of Hector, tied by its feet to the car, is dragged in the dust. His hands are bound over his head, and as the

¹ Strzygowski, *Koptische Kunst*, n. 9039. I wish to express my gratitude for the photograph of this bowl to Dr. Schott.

² Overbeck, *op. cit.*, pp. 452 ff.; R.E. 7, pp. 2817 ff.; Dugas, *Vases de l’Héraïos, Expl. Arch. de Délos*, 10, p. 546; *Bulletin Metropolitan Museum*, 1925, p. 298; Bulas, *op. cit.*, pp. 18 ff. This type has been preserved in classical form on the relief vase at Berlin (above, p. 90, note 5).

³ *Op. cit.*, pp. 142, 154 ff.; Haehnle, *op. cit.*, pp. 59 ff.; Bulas, *op. cit.*, pp. 92 ff. recognizes the importance of the Bernay jug without drawing the obvious conclusions. I do not believe with Bruening in an invention of this version by artists, for the works of art as well as the *Ilias Latina* can have been inspired by post-Homeric poetry, for instance by a message in a tragedy.

⁴ Compare the description by Philostratos, above, p. 89.



FIG. 5.—COPTIC BRONZE BOWL WITH REPRESENTATIONS OF THE LIFE OF ACHILLES, CAIRO



FIG. 7.—DRAGGING OF HECTOR'S BODY. SARCOPHAGUS RELIEF
(After Robert)



FIG. 8.—GEM, BIBLIOTHÈQUE NATIONALE
(After Babelon)

swift movement of the chariot has turned the body sideways, the hero's maimed face and his beard are visible. Behind the car the Myrmidons are seen, running to the right. Two look back, as though pursued by the enemy, thus suggesting a scene larger than the one visible in the picture. The path of Achilles is strewn with corpses: in spite of the deplorable state of preservation of this part of the relief, the right leg of a corpse may be seen between the feet of the first figure of the next scene. Clearly, lack of space has caused crowding. On the city wall in the background are warriors brandishing their spears at the right, the parents of Hector on the left. Priam is stretching his hand toward Achilles, in a gesture of supplication, though the hero has already passed. Hecuba, her features distorted by grief, throws up her hands in lamentation, and her mantle follows her frantic movement in a great curve round her head. Compared with this, all other copies of the same original seem feeble and inadequate. In some, only the chariot of Achilles and the corpse of Hector remain, without even the charioteer.¹ (See, for instance, the Coptic plate in bronze reproduced above, Fig. 5.) Sometimes the charioteer is still present;² in other copies we find the city wall in the background and at least one of the companions of Achilles.³ On some monuments, where other details are more or less complete, the figures of Priam and Hecuba may also be seen, with their gestures stiffly rendered.⁴ In spite of these differences, the inspiration of the same original as that of our jugs is sometimes unmistakable.⁵ Another change occurred in later copies: the addition of Andromache, who probably was not represented in the original composition. In this case, sometimes the two warriors at the right of our relief have been replaced by Hector's parents, and Hector's wife takes their original place.⁶ Andromache was added especially on sarcophagus reliefs as the mourning wife of the deceased owner of the coffin. Because of the impossibility of showing the figures on the city wall in such friezes, they are represented here as before and outside the wall, in accordance with the usual evolution of these funerary monuments from concrete detail to symbolic interpretation (Fig. 7).⁷ Some of these monuments have a special significance for us, in that they have preserved original motives (although often in very inadequate context) until they recur on the relief of our silver jug. Such details include the bound hands of Hector, which occur elsewhere only rarely (Fig. 7);⁸ and once even the front view of his head has been preserved.⁹ On another sarcoph-

¹ Compare the mosaic in the Vatican: Nogara, *Mosaici*, p. 19; gems: Overbeck, *op. cit.*, pl. 19, n. II; Furtwängler, *Geschnittene Steine*, n. 3131, 6492 ff.; Arretine vases: Haehnle, *op. cit.*

² Gems: Overbeck, *op. cit.*, pl. 19, n. 9; Furtwängler, *Gemmen*, pl. 64, 49.

³ Annali, 1874, pl. M; Tabula Iliaca; *Inventaire des mosaïques*, 307 = Reinach, *Rép. Peint.*, p. 168, n. 5; relief from Tegea, Robert, *Sarkophagreliefs*, 2, pl. 21, n. 46 = Lehmann-Hartleben, *Trajanssäule*, p. 103, fig. 15. The city wall reduced and Achilles without companions: *Sitzungsber. Wien. Akad.* 1861, pl. 3, fig. 4. In other cases the companions are still preserved, probably also in the statuette figures on the provincial relief, Jabornegg-Altenfels, *Kaerntens röemische Altertümer*, 1870, n. 143, pl. 5.

⁴ Tensae Capitolinae: *Catalogue of Sculptures, Palazzo dei Conservatori*, pls. 58 ff.

⁵ Gems: Overbeck, *op. cit.*, pl. 19, n. 10 = Furtwängler, *Geschnittene Steine*, n. 6884, lamp; *Brit. Mus. Catalogue of Lamps*, p. 133, fig. 171; Bulas, *op. cit.*, p. 93.

⁶ A.A., 1926, pp. 159–160, fig. 29 = *Atti del I. Congresso di Studi Romani*, pl. 28.

⁷ Robert, *op. cit.*, 2, pl. 21, n. 45, p. 221, fig. 45; *Archaeologisch-epigraphische Mitteilungen* xiii, 1889, p. 69. The Ara Casali (Amelung, *Skulpturen des Vatikanischen Museums*, 2, 238) belongs to another class of representations (Bulas, *op. cit.*, p. 93, note 2).

⁸ Robert, *op. cit.*, 2, pl. 21, n. 45.

⁹ Robert, *op. cit.*, p. 221, fig. 45.



FIG. 6.—DRAGGING OF HECTOR'S CORPSE, FROM THE "CAPITOLINE PERISTOLEUM"
(Photo Deutsches Arch. Inst., Rome)

gus a corpse may again be seen lying under the chariot.¹ It is, therefore, certain that our jug has kept nearly the whole of the original work, of which other reproductions have kept the more general outlines and certain details. That even our scene is not a complete copy of the famous original, however, can be shown with the help of other monuments. One, because of its lateness and poor quality, cannot be said to have added anything of its own; but on this so-called "Capitoline Peristomium" of late Imperial times, the last scene is almost an excerpt from our picture (Fig. 6),² except that besides Achilles, Hector and Priam, who have been copied from our original, the figure of Nike has been added, preceding the chariot. She is missing on our jug, but occurs again in the same position on a sarcophagus.³ Sometimes Athena or an insignificant warrior takes her place (Fig. 7, p. 93).⁴ That Nike belonged to the original composition is made extremely probable by her presence on another copy, a gem in the Bibliothèque Nationale (Fig. 8, p. 93),⁵ where Priam and Hecuba have been replaced by other Trojan warriors in addition to those on our jug. Because there was no room for Nike at the right edge of the gem, she has been added in her most common form, that of a flying figure.⁶ We have already mentioned that the right end of the scene on the silver jug overlaps the next picture, clearly curtailing the original design. Therefore, in the original, Nike probably preceded the chariot, and a similar Nike may still be seen at the right of the second picture. As will be pointed out later, both scenes have a common artistic origin, and there can be little doubt from Nike's presence here and on other copies that she belonged in the original scene.

On the gem in Paris we see still another figure which is generally absent. Athena is seated at the left, extremely misplaced in this position. At the lower edge of another gem⁷ lies a personified mourning figure of Troy. On a sarcophagus relief, the figure of the Scamander river occupies the same place.⁸ A similar figure, therefore, obviously belonged to the original composition.

The original, which was probably a painting, can thus be reconstructed as a rectangular picture, higher than it was broad, with the goddess of the city (?) lying in the lower foreground, and, in the main scene, the dragging of Hector's corpse, as on our jug, with Nike preceding the chariot, and Priam and Hecuba above, with warriors on the city wall, as on the silver jug. Probably the metal prototype of the Bernay jug made the transition from the original by leaving out the figure of the goddess and giving the whole composition more the aspect of a frieze, thus impairing the original effect. The attitude of Achilles can really be understood only if the city

¹ *Ibid.*, pl. 26, n. 64, right.

² Roscher, *Lex. I*, pp. 1922 ff; Helbig-Amelung³, p. 766. Our illustration is taken from a photograph of the German Archaeological Institute in Rome, which Dr. Curtius very kindly supplied for me.

³ Robert, *op. cit.*, 2, pl. 21, n. 44.

⁴ *Ibid.*, p. 221, fig. 45 and n. 45.

⁵ *Mémoires de la Société des Antiquaires de France*, 6. sér., 5, 1895, p. 145; Babelon, *Guide ill. Cab. méd.*, 1900, p. 54, fig. 28.

⁶ On the provincial relief mentioned in n. 3, p. 94 this figure again has been replaced by a winged Genius with palm branch and wreath. In the painted frieze in the House of Loreius Tiburtinus at Pompeii (n. 3, p. 87) a Nike has been painted as decoration on the chariot of Achilles.

⁷ Furtwängler, *Geschnittene Steine*, pl. 50, n. 6884.

⁸ Robert, *op. cit.*, 2, pl. 21, n. 44.

wall is reconstructed as higher in the original. In our copy it is very hard to realize that the hero is being actually threatened by the Trojans. In spite of these changes, the silver relief is the most impressive copy of the original work: alone of all the copies preserved of its famous prototype, it enables us to gain an approximate idea of its style and effect.

Before considering the style and dating of this scene, we must look at the Death of Achilles next to it (Pl. XIV B and Fig. 4), for not only are both pictures united by a common intellectual conception and by the city wall, which forms the common background of the two scenes, but they are stylistically and spiritually remarkably alike. In the center Achilles is falling. His shield has slid from his left arm, and although he is making a last effort to draw the arrow from his right heel, his head is sinking forward and the fight for his body has even begun: Ajax has seized him by the right shoulder, in an attempt to draw him back. To do this he has been obliged to cover himself in the position of Achilles in the last scene, with his shield held horizontally over the body. The enemy is marching vehemently to the attack from the left. Three in number, according to the tradition preserved by Quintus of Smyrna, they are Glaukos, Aeneas and Agenor. From the same source we can recognize Odysseus as the wounded hero lying behind Ajax. A Greek is running rapidly to the rescue at the right, to balance the Trojans in the left foreground—thus framing the agitated composition. The head and the raised right arm of another Greek may be seen in the background, over the shield of Ajax. Nike is running with a wreath to the right, not to give it to a Greek, as has been suggested, but preceding the Trojans as the symbol of their victory—in contrast to the other scene, where she originally led the chariot of Achilles, and emphasizing once more the *peripeteia* of human destiny. She is a true Hellenistic sister of the equally unreliable and Hellenistic Tyche, who reigned in the centuries after the death of Alexander.

Unfortunately we are not able here, as in the preceding scene, to compare a full iconographical tradition, to determine the exactness of this copy from its original. The few remaining representations of the death of Achilles are not adequate for this, and our histories of his life in general lack its last scenes, as the late compilers had such difficulty in reproducing their voluminous models that they often cut out the end; so, although representations of his childhood have been preserved to us in many and detailed copies, our relief most unluckily cannot properly be compared with other monuments. We have already said that there are several obvious inaccuracies of detail in this scene. It seems improbable (although not impossible) that a composition so grandiose should have been invented by a metalworker: in any case, the originator cannot have been the maker of the Bernay jugs: it is evident that he is copying (and mistranslating) an earlier model. But if it is not possible to give a definite answer as to whether the original was a monumental work or not, there can at least be no doubt as to the style and its origin.

First, the fact must be mentioned that the figure of Achilles alone occurs on Italic gems, the earliest of which have been dated by Furtwängler ca. 300 B.C.¹ The type was a famous one. The “quotation” of earlier works of art² was a characteristic

¹ Gemmen, pl. 18, n. 72; pl. 20, n. 54; Lippold, *Gemmen und Kameen*, pl. 51, n. 13.

² Von Salis, *Der Altar von Pergamon*, pp. 23 ff.

feature of the Pergamene School: the same figure occurs once more among the Giants on the Altar of Pergamon,¹ where we also find copies of the dying Gaul from the great Pergamene battle-groups and from the smaller ones.² This type has been used for the wounded Odysseus on our relief. The whole scene and the picture next to it are of the same general style as the reliefs from the Pergamene Altar: they are characterized by the same wild fury and pathos, the same dense mingling of figures, and the same flow of garments. Equally typical of the style both of the Altar reliefs and our scenes is the contrast of this baroque tendency with the grand, simple and classical rendering of single figures, such as the foremost Trojan on our jug. We find other figures with complicated torsions and "contrapposto" tensions of their bodies. Characteristic also is the pictorial rendering of space, which is obvious in the deep gradations of the relief carving in both our scenes, and effectively increased by the great shields held nearly perpendicularly to the ground plane by Achilles and Ajax. The pathos of Priam and Hecuba, the grandiose motive of the arched and blowing cloak,³ the realistic rendering of the corpse of Hector, and the rapidity of the action (purpose unknown) are all typical of Pergamene style. Just as the wounded Odysseus was represented in a specifically Pergamene formula in the scene of the Death of Achilles, so an analogy exists between a figure in the "Dragging of Hector's Corpse" with one of the figures on the Telephos frieze.⁴ Not only are his attitude and movement very similar, but details like the cloak are almost identical. The origin of the main reliefs of this jug in Pergamene art of the first half of the second century B.C. cannot be doubted. They are dominated by an emotion and agitation in their interpretation of the old myths that are not met with in earlier art, and contrast strongly with the scenes on the other jug, so plainly inspired by an earlier, classical style.

Still another detail is important: the great city wall in the background with figures standing on it.⁵ Similar walls in the background of certain Pompeian frescoes, which are Pergamene in style in other ways as well, are probably copied from actual Hellenistic models. The beautiful painting of the death of Klytaimnestra, for instance, with a group very similar to the Pergamene group of the Gaul and his wife,⁶ is a case in point. The question arises as to whether scenes with continuous narrative, as first seen on the Telephos frieze of the Altar of Pergamon, might not have had

¹ *Altägypter von Pergamon*, 3, pl. 17.

² *Ibid.* The view expressed here is opposed to that of E. Loewy (*Jb. Arch.* I. xlii, 1927, pp. 115 ff.). He believes that the sculptural types of the Pergamene groups were originally created by painters. Though it is possible that later reliefs copied these figures in part from intermediary paintings, I see no reason to doubt that the earliest sculptural conceptions preserved in Pergamene art were also the original conceptions. The Pasquino group, which must also have been a plastic creation, was copied afterwards, too, in the cyclic scenes of the life of Achilles (*Tensae Capitolinae*, above, p. 94, note 4).

³ Compare *Altägypter von Pergamon*, 3, pl. 2.

⁴ *Ibid.*, pl. 34, above, left side. It may be mentioned also, that the motive of a figure personifying a locality and reclining in the foreground, which was shown above to belong to this scene was also in use in Pergamene art. It has been preserved in the Prometheus relief of the early first century B.C. (Krahmer, *Jb. Arch.* I. xl, 1925, pp. 183 ff.), which itself was undoubtedly dependent on the inspiration of a somewhat earlier painting.

⁵ Compare the observations, *Trajanssäule*, p. 101, now no longer satisfactory.

⁶ Reinach, *op. cit.*, p. 210, 6; Springer-Wolters, *Kunstgeschichte* 8, 1, p. 306. Compare also "Herakles Hippolyte," *A.Z.*, 1870, pl. 36=Herrmann-Bruckmann, *Denkmäler*, pl. 177; the Iliupersis on the bronze helmet from Pompeii (Reinach, *Rép. des reliefs*, 3, p. 77), probably from the first century B.C.

an architectural or landscape background even in Hellenistic times. Our reliefs suggest that what has always been considered Roman in origin might in reality have been Hellenistic.

The two scenes on the necks of the jugs now remain to be considered. Even these unpretentious pictures, each consisting of two decorative figures, are products of a long evolution. Of course, one must repeat that the maker of the jugs has rigidly subordinated representation to decoration: the scene of the Doloneia is almost unintelligible through curtailment. The arrangement of the reliefs, each with a central altar between two facing figures, is in accordance with the tendencies of early Imperial times. (See again the silver jug from Boscoreale, Pl. XV A, already compared with our jug.)¹

Through the scene of the theft of the Palladion (Pl. XIII, Fig. 3), represented on the neck of our first jug, may be seen the outlines of the original work of art. On one side of our picture² Diomede is carrying the Palladion, as he does in the epic tale. The temple (now under the handle of the vase) must once have stood on the ledge of rocky ground, down which the hero is climbing with his prize: the idea is that Diomede has removed the image from the temple and is escaping with it down the hill. Odysseus is late for the adventure, and as he approaches from the other side, it is easy to see from his agitated gestures that he is demanding the idol: the famous quarrel between the heroes is beginning.³ The altar may have belonged in the original scene, but it is not now in the only possible original place near the temple. Probably, as on the other jug, it was added by the silversmith. Thus the original work of art certainly contained rocky scenery at the left, with a temple at the top, and Diomede descending from the rock, meeting Odysseus below. The simple composition, with a few clear figures in direct antithesis and a few indications of landscape, conforms to classical models. The temple on a hill may be seen on the well-known vase from Kertch, with a representation of the contest between Athena and Poseidon.⁴ On another Kertch vase the attitude and movement of Priam in the scene of the sack of Troy are like those of Diomede.⁵ For Odysseus, see the figures of Odysseus and Diomede in the excellent grotesque representation of the Doloneia, which Hauser even believed to be a work of the great Zeuxis.⁶ All the details of this scene, even to the garments of the heroes, and especially the cloak of Diomede, can be compared with those of our Odysseus. Among representations of the theft of the Palladion is one of very similar scheme and style, again from the fourth century B.C., on a splendid vase in London, belonging to the group with representations of *Phlyakes*. We see the same simple combination of the two heroes, although one figure is shown

¹ *Mon. Piot* v, pp. 48 ff.

² Compare with the following observations, Roscher, *op. cit.*, s.v. *Palladion*, pp. 1304 ff. and also, for our scene, Chavannes, *De raptu palladii* (Diss.), Berlin, 1891, p. 17, n. 64.

³ So already Overbeck, *op. cit.*, p. 590. The description of Babelon, *op. cit.*, p. 84, interpreting Diomede as climbing down from an altar is due to a mistake in method (a mixture with the other type, which we shall discuss later). By the same method, Robert (*A.Z.*, 1889, p. 151 and *Sarkophagreliefs*, 2, p. 151) was led to the abstruse conclusion that the Diomede in our scene had not yet jumped down on the altar!

⁴ Kondakoff, *Antiquités de la Russie méridionale*, p. 78, fig. 108.

⁵ *Jb. Arch.* I, ix, 1894, p. 162, fig. 36.

⁶ Furtwängler-Reichhold, *op. cit.*, pl. 110. Compare also the gem, Furtwängler, *Geschnittene Steine*, n. 4294, with a similar movement of Dolon.

from behind (Fig. 9).¹ Here it is Odysseus who has picked up the statue and Diomedes who is pursuing him. A figure type of Diomedes, combining various features of the figures on the jug, occurs again on Argive coins of the period between 421 and 350 B.C.² The figure of Diomedes may have been inspired by both our figures. In any case,



FIG. 9.—SOUTH ITALIAN OINOCHOE, BRITISH MUSEUM
(Kindness of the British Museum)

famous Hellenistic work, which itself was based on the earlier classical composition, transformed and "quoted" by later Hellenistic artists (Fig. 10).⁵ The original mo-

one may not doubt that the original of our scene belonged to classical times and that, in spite of the abbreviation of the whole composition, even some of the original details have been preserved. The style of the beard of Odysseus is even more severe than that of the same hero in the Lytra scene, which, as the reader will remember, was, in turn, copied from a model of the fourth century B.C. (Fig. 3). Compare with these, on the other hand, the head of the Odysseus on the neck of the other jug (Fig. 4), with its Hellenistic untidiness of the hair. The original of our picture can be dated in the last decade of the fifth century B.C.³ and the scene is stylistically the earliest of all the scenes on our jugs.

Other pictures of the scene have been connected with our relief by others,⁴ in spite of differences in style. It is a type especially common on gems and other Roman monuments of the Imperial Age.

It must have been inspired by a

¹ Brit. Mus. F 366; *Jb. Arch.* I, i, 1886, p. 296. Our illustration has been taken from a photograph which the administration of the British Museum was so kind as to provide.

² B.M. Cat. *Coins Pelop.*, pl. 27, n. 12; Chavannes, *op. cit.*, p. 4, n. 3.

³ The contraposed movement of an advancing figure occurs earlier on the famous Berlin Skyphos belonging to the decade 450 to 440 B.C., with the representation of Odysseus and the suitors.

⁴ See above, p. 99, n. 3; Jahn, *Annali*, 1858, pp. 236 ff.; Robert, *op. cit.*, 2, p. 151; Collignon, *C. R. Ac. Inscr.*, 1913, p. 116.

⁵ Overbeck, *op. cit.*, pp. 590 ff.; Furtwängler, *Geschnittene Steine*, nos. 4303 ff., 6885 ff., 11273; Idem, *Gemmen*, pl. 43, nos. 19, 21; pl. 49, nos. 1, 2, 5; pl. 50, nos. 10-12; Kilbatchitsch, *Gemmes de la Russie méridionale*, pl. 18, n. 477; Lippold, *Gemmen und Kameen*, pl. 42, n. 5; sarcophagi: Robert, *op. cit.*, 2, pl. 51, fig. 139; circular marble relief: *C. R. Ac. Inscr.*, 1913, p. 155. That the original was also a painting is probable in view of the Pompeian fresco, Helbig, *Wandgemälde*, p. 462. The imperial

ment in which the scene takes place and the two-figure composition have been kept—in fact the scene in the Hellenistic picture can be understood only as a conscious transformation of the classical model. Diomedes descending from the altar “makes sense” only if one remembers his climbing down from the Acropolis at Troy. The hill has been replaced by the altar, since the artist wished, in typically Hellenistic fashion, to show the rich interior of the sanctuary itself, with its altars, its votive monuments and enclosing wall, and even a part of the city wall. It is possible to believe that Diomedes was obliged to climb upon the altar to reach the idol. (In a well-known arrangement the idol could have been placed on a high pillar or column behind the altar, which may have existed in the Hellenistic version.) In any case, the motive may be explained only as the survival of an earlier type in a later adaptation, a “quotation” from an earlier work of art, such as we have already seen in the main scenes on one of our jugs. The figure of an enemy guard, asleep in the background, has been added in the Hellenistic version, suggesting not only the scene (the night), but a new element of dramatic tension. It seems likely that the outbreak of the quarrel will be followed almost immediately by the discovery of the intruder. The Hellenistic artist has complicated, too, the movements and the forms. The overlapping of the limbs, the hacked contours, the fluttering garments and the emotional heads in this version are typical of later art. Comparison of the scene with the picture on the Bernay jug shows again the contrast between Hellenistic and classical art. The clear relief planes, the simple spacing of the figures, the restraint of the gestures and the lack of facial expression of the earlier type contrast with the developed scenery with its spatial depth, the rather complicated translation of “quoted” motives, the increase in dramatic tension, and the rendering of emotion on later works of Hellenistic style.

We meet the same contrast again in comparing the original of the scene on the neck of our first jug with that on our second (Pl. XIV, Fig. 4). It represents the Doloneia, but the connection would have been hard to make, were it not that, fortunately for us, another excellent copy of the same original exists, to make the link. As we have said before (p. 85) the artist has left out Diomedes in this scene: his decorative scheme allowed only two figures on the neck. The wolf's skin worn by the man at the left proves that person to be Dolon, and therefore that the scene copied was that of the Doloneia. Odysseus is certain: he wears the *pileus*. Only Diomedes is missing, but he must once have been there. The artist not only left him out: he has changed other things. The altar is absurd at this time and place, but it serves to give a central

coinage of Argos was also inspired by the same model: *Cat. Coins Pelop.*, pl. 28, n. 12. The discussion has been further complicated by the forged relief at Naples (Furtwängler, *Gemmen*, text to pl. 43, n. 19). A fresco at Naples, different in composition, but which can be compared for the interpretation (Reinach, *Rép. peintures*, p. 171, 1), proves in the rendering of details of the sanctuary and the presence of Trojan women, that Robert's interpretation of Diomedes as jumping down from the outer city wall is erroneous.



FIG. 10.—THEFT OF THE PALLADIUM
(After Kilbatchitsch)

accent to the main axis of the vase.¹ On the opposite axis, under the handle, we see another object, which again has no relation to the main scene: a votive vase standing on a wreathed, circular base—a typical element of the well-known “sacred” landscape pictures, so popular in early Imperial times. In view of the formality of the arrangement, the presence of the tree between Dolon and Odysseus is remarkable. It has no pendant, and clearly must have belonged to the original scheme, and fortunately pleased our copyist so much that he retained it. The two figures preserved

must have been much changed. One's first impression is that Odysseus is beckoning Dolon, and Dolon answering him in a friendly way—and our Odysseus is quite unarmed. The omission of Diomede has robbed the figures of all sense: their opposition is merely a formal one. That the figures and the tree come



FIG. 11.—DOLONEIA, MARBLE RELIEF
(After Brunn-Bruckmann)

from the original, however, is proved by another representation of the Doloneia:² the beautiful pictorial relief (Fig. 11),³ one of the few in Schreiber's collection to merit the name “Hellenistic.” Another replica, although more fragmentary, is even more exact in detail.⁴ It proves that Schreiber's relief is but a Roman copy of a famous picture of Hellenistic times. Here, not only the tree in the center, but also the figure of Dolon in a listening attitude, with two spears over his right shoulder and with his right arm raised with pointed forefinger, are reproduced. The Bernay artist diminished the size of the tree, drew Dolon in profile and omitted bow and quiver, but the wolf's skin is the same, far back on the head, showing the front hair, with the paws tied under the chin and the skin fluttering backward in a great curve. The scene of the Bernay jug must have come from the original of the marble reliefs. Odysseus has been separated from Diomede and turned to face right, but he too raises his hand to his chin in the silencing gesture found on the reliefs.

¹ See above, p. 99 and Pls. XIII, XV.

² Iconography of the Doloneia: First type with Dolon seized from either side: *Annali*, 1875, pls. Q-R; Overbeck, *op. cit.*, pl. 17, n. 2; Gardner, *Catalogue of the Greek Vases in the Ashmolean Museum*, n. 226; Bulas, *op. cit.*, pp. 38 ff., figs. 31 ff.; Johansen, *op. cit.*, fig. 27; surviving still in the vase-painting, Furtwängler-Reichhold, *Gr. Vas.*, pl. 110 = Bulas, *op. cit.*, p. 72, and probably also in Heydemann, *Vasensammlung Neapel*, 634, n. 20. Second type, with Dolon being killed: *Annali*, 1875, pl. Q; Overbeck, *op. cit.*, pl. 16, n. 19; Iliad illustration, *Annali*, *ib.*, pl. R. The interpretation of the clay mould published by Sieveking, *Münch. Jahrb.* xii, pp. 117 ff., is doubtful. The Doloneia undoubtedly is not rendered on a Clazomenian sarcophagus and a vase-painting at Munich: Sieveking-Hackl, *Vasenkatalog*, I, pp. 60 ff.; Bulas, *op. cit.*, p. 40 (but see also Sieveking, *Münch. Jahrb.*, *ib.*, p. 118, note 1).

³ Schreiber, *Hellenistische Reliefbilder*, pl. 45; Brunn-Bruckmann, *Denkmäler gr. und röm. Skulptur*, pl. 627 b; bibliography: *Trajanssäule*, p. 125, note 1.

⁴ Sieveking, text of Brunn-Bruckmann, *op. cit.*, pl. 627, fig. 1.

Klein has already (and rightly) considered the marble relief Pergamene in style.¹ We may add other details: the fluttering of the wolf's skin (copied better on the relief than on the jug), to be compared with that of the last Myrmidon in the Dragging of Hector's Corpse and with that of the figure on the Telephos frieze mentioned above; the spatial rendering of the shields on the marble relief and the main scenes on our jug; the grouping of the two heroes on the relief and the group of Ajax and Achilles in the scene of the dying Achilles; the great nocturnal bird in the Doloneia (meant to increase the uncanniness of the scene) and a bird on the Telephos frieze;² the tree (as mentioned above and by others) and the trees of the same Telephos frieze. The tension, the vehemence of the action, expressed not only by gesture, but by facial expression, all are characteristic of Pergamene work. The contrast of the more Hellenistic Odysseus of this scene on the neck of the jug with the severer Odysseus of the other vase has already been drawn: even in an absurd and almost unintelligible context, such as this, one may still see certain original details preserved. The model of the scene of the second jug must have been a famous Pergamene work of the best period.

We therefore see the great importance of the two Bernay jugs in the history of ancient art. In them, we can appreciate better than anywhere else the full extent of our loss of toreutic copies from monumental works of art. As a matter of fact, these two jugs with their reliefs have preserved not less than three scenes from classical Greek art: the Theft of the Palladion, from the late fifth century B.C.; Achilles Mourning, from the early fourth century; and the Lytra from the later fourth—all copies of Attic pictures. Three others were inspired by Pergamenian work of the second century B.C.: The Doloneia, the Dragging of Hector's Corpse, and the Death of Achilles. Four of the six were known from other copies as well. For two (the Death of Achilles and the Theft of the Palladion), the Bernay jugs are our only source of information. The best copies extant of three famous originals (Achilles Mourning, the Ransoming of Hector, and the Dragging of Hector's Corpse) are found on our jugs.

This analysis leads to an important problem: that of the conscious copying of various styles by a single artist, and his choice and distribution of different models in his work. In looking at the jugs as a whole, we see clearly that on one jug scenes of only classical style were used; on the other scenes in the Pergamene manner. To judge rightly in this matter one must consider first that the jugs were the work of early Imperial times—probably copies of earlier works in metal; second, that while the main scenes were, on the whole, quite exact copies, the scenes on the necks have been much changed and adapted for decorative purposes; third, that the four main scenes form a unit, joined by a common idea, and each of the jugs is also a stylistic unity. The general arrangement of the main scenes must, of course, have been already present in the originals of our copies, as it is plain that the artist knew nothing of mythology (this is clear from his treatment of the scenes on the necks), and so he could not have been responsible for the choice of subjects. Even the distribution of the two pairs might similarly have already appeared on his models, which may have been a pair of (silver) vessels. The vases must have been of a different shape:

¹ *Geschichte der griechischen Kunst*, 3, p. 141.

² *Altägypten von Pergamon*, 3, pl. 32, 6.

the craftsman has had considerable difficulty in fitting his scenes to the new form, and has curtailed the symmetry of his arrangement of the pairs (see above, p. 85). They probably were two-handled "Homeric" goblets: skyphoi or kantharoi. The scenes on the neck, although unrelated to the main reliefs, correspond to each other, but their correspondence, while originally completely antithetic in subject and style, has now been adjusted by the artist for the sake of decoration. As with the main scenes, it may be assumed that the scenes copied on the necks of the Bernay jugs were each at one time on a vase of a corresponding pair. One recalls the silver cup with the Theft of the Palladion, made by the Hellenistic artist Pytheas. From the small number of figures and from the pictorial quality of the scenes, one may guess that the pictures are copies of emblemata in the center of a pair of silver cups or plates.

To sum up: the Bernay artist copied an earlier set of silver: two pendant goblets, one with the Mourning Achilles and the Lytra, the other with the Dragging of Hector's Corpse and the Death of Achilles; and a pair of cups; each with a single scene: the Theft of the Palladion and the Doloneia.

The period of the earlier vases cannot be definitely determined. From the Pergamene style of some scenes and from the date of our jugs, their direct prototypes might have been executed at any time from the second half of the second century B.C. to the Augustan Age, but the combination of the scenes must be attributed to an Anatolian artist who flourished probably in the first century B.C. under the influence of the Pergamene School.¹ This is shown not only by the opposition of the subjects but also by the contrast in style of the models copied. Subjects in the classical style balance contrasting subjects in Pergamene style; the classical "Achilles Mourning" faces the Pergamene "Dragging of Hector," the classical "Lytra" the Pergamene "Death of Achilles," the classical "Theft of the Palladion" the Pergamene "Doloneia." This choice follows a conscious principle, not less important than the choice and antithesis of the mythological scenes themselves. Another result of our analysis is the realization that all the scenes originally were reproductions of famous works, probably paintings. In late Hellenistic times a goblet and a cup with Homeric subjects executed in classical style were contrasted with another goblet and cup in Pergamene style. The copyist did not try to assimilate the works he copied: he kept the differences in the work of different periods, even to details of faces and dress. These undoubtedly were more finely executed in the late Hellenistic version than in our "derived" copies, and yet they are very clear on the later replicas. Only one relief was changed at its point of contact with its neighbor (the Lytra scene), and even here the slight change served only to emphasize the contrast of classical with Pergamene style. As far as we know, this opposition of styles is not characteristic of the time in which Pergamene art flourished,² when artists were adapting the earlier works to their own style in new interpretations and formulae. The respectful and appreciative preservation of characteristics of earlier styles is truer of the work of the first century B.C., and the sententious confronting of subjects, their selection from long Hellenistic "cycles," in illustration of human charac-

¹ Compare the brilliant observations of Dragendorff, *Bonner Jahrb.* ciii, 1898, p. 107, against "Alexandrianism."

² Krahmer, *Röm. Mitt.* I, 1925, pp. 67 ff.

ter and human destiny, contrast at the same time the "nobilia opera" of the two great styles of Greek art at its fullest development.

So the silver jugs from Bernay, in preserving the *schemata* of earlier work, have likewise kept some of the artistic spirit of the first century B.C., when art was produced by educated artists for an educated public familiar with mythology, moral philosophy and the history of Greek art. Like the poetry of late Republican times, these jugs give us a glimpse into the artistic learning of Roman society.

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SELEUCID CHRONOLOGY IN MALALAS

IN THE chronicle of Malalas there are references to what are ostensibly two earthquakes at Antioch in the second and first centuries before Christ; and Justinus records another which presumably affected the city shortly before 69 B.C.¹ It is the purpose of this study to show that there is, in one of Malalas' accounts, evidence for at least one other earthquake, which he does not specifically mention. It will be found that this account reflects the mistaken identification of several disasters, and that the confusion apparently has some relation with the errors in Malalas' account of the sequence and chronology of the Seleucid kings. Examination of the ways in which this chronological confusion may have arisen will, accordingly, provide further information concerning Malalas' methods of work and the nature of his sources for the history of Antioch during the Seleucid and the Roman periods.²

One of the earthquakes which Malalas records is mentioned in his description of Agrippa's visit to Antioch in 15 B.C., in which he says that Agrippa ἐξεχόσεν τοῦ παλαιοῦ ἱππικοῦ τὰ χώματα, ἀπερ εἰχεν ἐκ τῶν πρώην φόβων.³ The phrase ἐκ τῶν πρώην φόβων

¹ Speaking of the expulsion of Tigranes from Syria in 69, Justinus says (XL, 2, 1-2): "Sed sicut ab hostibus tuta Syria fuit, ita terrae motu vastata est, quo centum septuaginta milia hominum et multae urbes perierunt. Quod prodigium mutationem rerum portendere aruspices responderunt. Igitur Tigrane a Lucullo victo rex Syriae Antiochus, Cyziceni filius, ab eodem Lucullo appellatur." The catastrophic character which Justinus attributes to this earthquake makes it in itself likely that it affected Antioch; and that it did so may be indicated by Malalas' statement that when Pompey visited Antioch he rebuilt or repaired the bouleuterion, "for it had fallen" (211, 18). This is presumably the bouleuterion which Malalas says was built by Antiochus Epiphanes (205, 15; 234, 2), and although Malalas' words might indicate that the building was in disrepair because of age or neglect, they might mean that it had been damaged by an earthquake (see my article cited below, p. 107, n. 3). Strabo quotes from Posidonius a record of an earthquake in Syria which might have occurred during the lifetime of Posidonius (ca. 135-ca. 51 B.C.), but there is no reason to believe that it affected Antioch or that it is to be identified with the disaster recorded by Justinus (Strabo I, 3, 16, p. 58 C = *F. Gr. Hist.*, II A, fr. 87, p. 274; cf. Capelle, "Erdbebenforschung," *R.E.* Suppl. IV, 356).

² Malalas' account of the Seleucid history of Antioch has not yet been examined in detail. His chronicle, composed in the sixth century, is the most important single source for the history of Antioch, since the author lived there and much of his material for the history of the city was taken ultimately from the local archives; see K. Krumbacher, *Gesch. der byz. Litt.*, Munich, 1897, pp. 325-334; J. B. Bury's review of Krumbacher, *Class. Rev.* xi, 1897, pp. 209-212; K. Wolf, "Ioannes Malalas," *R.E.* ix, 1795-1799 (publ. 1916); W. Weber, "Studien zur Chronik des Malalas," *Festgabe für A. Deissmann*, Tübingen, 1927, pp. 20-66; A. Schenk v. Stauffenberg, *Die röm. Kaisergeschichte bei Malalas. Griech. Text der Bücher IX-XII und Untersuchungen*, Stuttgart, 1931; and W. Ensslin's review of Stauffenberg, *Phil. Woch.* liii, 1933, pp. 769-789. For the history and topography of Antioch the fundamental work is C. O. Müller's *Antiquitates Antiochenae*, Göttingen, 1839, supplemented by R. Förster, "Antiochia am Orontes," *Jahrb. des k. deutschen Archäol. Inst.* xii, 1897, pp. 103-147 and the studies of Weber and Stauffenberg cited above. There is a good bibliography of Malalas in G. Moravesik, *A Magyar Történet Bizánci Forrásai*, Budapest, 1934, pp. 70-72. Excavations are now in progress at Antioch under the auspices of the Committee for the Excavation of Antioch and its Vicinity (see *Antioch-on-the-Orontes, I: The Excavations of 1932*, edited by G. W. Elderkin, Princeton, 1934, and W. A. Campbell, "The Third Season of Excavation at Antioch-on-the-Orontes," *A.J.A.* xl, 1936, pp. 1-10; a volume of reports on the seasons of 1932-1936, edited by R. Stillwell, is in press). During the season of 1937 the excavations were assisted by a grant from the Penrose Fund of the American Philosophical Society.

³ P. 225, lines 4-7, ed. Bonn, cited from the text of Stauffenberg, mentioned above; passages not included in his edition are cited from the Bonn text (1831; anastatic reprint, Bonn, 1926). On Malalas'

certainly refers to only one disaster, for Malalas calls the earthquake of A.D. 37 *τὸ δεύτερον αὐτῆς* [scil. τῆς Ἀντιοχείας] *πάθος τοῦτο τὸ μετὰ τὸν Μακεδόνας*,¹ evidently with reference to one earthquake which had occurred between the Roman annexation of Syria and A.D. 37, and it is reasonably certain that in two other passages he uses *phoboi* to mean one earthquake, just as Evagrius often uses *seismoi* in the same sense, evidently because one disaster might consist of several distinct shocks.² The earthquake which produced the débris which Agrippa cleared from the hippodrome can be dated not only by Malalas' statement that the disaster of A.D. 37 was "the second after the Macedonians," but by the circumstance that he goes on to say, in the account of Agrippa's visit, that the hippodrome had been "built," that is, repaired or rebuilt, by Q. Marcius Rex, the proconsul of Cilicia, on the occasion of his visit to Antioch in 67 B.C. (or possibly 66).³

account of Agrippa's visit, see Stauffenberg, *op. cit.*, pp. 151, 164, and M. Reinhold, *Marcus Agrippa*, Geneva, N. Y., 1933, pp. 59, 84, 111.

¹ 243, 12; on the date see Stauffenberg, *op. cit.*, p. 187 (the earthquake is mentioned again by Malalas, 265, 14). This disaster is the first to be mentioned in the numbered series of earthquakes at Antioch which Malalas gives. He calls that of 115 *τὸ τρίτον αὐτῆς πάθος* (275, 4), that of 457 or 458 the fourth (369, 6), that of 526 the fifth (419, 6), and that of 528 the sixth (442, 19); his failure to mention specifically the "first earthquake after the Macedonians" may be connected with the chronological confusion in his information concerning the disasters in the Seleucid period (see below, p. 119, n. 2). Malalas similarly assigns numbers to earthquakes in the imperial period at Nicomedia (289, 9; 299, 1; 363, 10; 385, 6; cf. 259, 6; 487, 5, and Stauffenberg, *op. cit.*, pp. 221, 316, 328); Rhodes (275, 13; 406, 20; cf. 190, 5, and Evagrius III, 43); and Diocæsarea in Cilicia (267, 14; cf. Stauffenberg, *op. cit.*, pp. 256-258—his reference on p. 256 to "S.00" is presumably to p. 221 or p. 233). Malalas likewise mentions earthquakes at Antioch in the imperial period, to which he does not assign numbers (246, 11, under Claudius, and 478, 16, under Justinian; cf. also 308, 3 and 249, 17). There is also independent evidence for earthquakes at Antioch which Malalas does not mention at all, possibly because they were not sufficiently severe to be included in the numbered series: there was one in 341 (Theophanes A.M. 5833, p. 36, 28 ed. De Boor; Cedrenus I, 522, 7); one or more in the period 362-388 (or 393) (Chrysostom, *P.G.* xlvi, 1027 ff.; I, 567; xlvi, 57); and others in 553, 557, 561, all of which might have been known to Malalas (Cedr. I, 674, 12 and 676, 10; Theophan. A.M. 6053, 253, 10). The earthquake at Antioch (presumably under Domitian) which Philostratus mentions in his life of Apollonius (vi, 38) may be fictitious (cf. Mal. 264, 6 ff.).

² This use of the words would be analogous to our use of "tremors" and "shocks" to describe an earthquake. Malalas says that a column at Constantinople bearing a statue of Theodosius I had fallen *εἰς τὸν φόβον* (401, 7), and the same meaning appears in a phrase used in the account of the earthquake of 528 at Antioch, . . . *δοστε τὰ ἀναγεθέντα κτίσματα ντὸ τῶν πρώην γεομένων φόβῳ κατατεστέν* (442, 20), in which the reference is presumably to the earthquake of 526; the meaning might be the same in 490, 1. In several passages in Evagrius the context proves that *seismoi* means only one earthquake. He says (VI, 8, p. 227, 3 ed. Bidez-Parmentier) that the earthquake of 588 at Antioch occurred *μετὰ τὸ καὶ ἔγκοστὸν ἵετο τῶν προτέρων σεισμῶν*, and that the disaster affected the dome of the "most holy church" (i.e. that of Constantine), which had been repaired by Ephraemius, *εἰς τὸν ἐπὶ Ιοντίνον σεισμῶν παθόντος* (p. 227, 13); both references must be to the earthquake of 526, the only one known to have occurred at Antioch in the reign of Justinus. Evagrius says in the same passage (228, 8) that a certain Asterius ἔργον τῶν σεισμῶν γέγονε. In the same way, he says, in his account of the disaster at Antioch in 577 or 581, that the whole of Daphne *τῶν σεισμῶν ἔργον γέγονε* (V, 17, p. 212, 18). Elsewhere Evagrius says (III, 43, p. 145, 33), *πέντε δὲ ὅπερ σεισμῶν ἔκστιν ἀνὰ τὸν αὐτὸν χρόνον καὶ ὁ Πόδος, τρίτον ἔκεινο πάθος, ἀπει τῶν νυκτῶν*. Both Malalas and Evagrius also use *seismos*, *phobos*, and *klanos* in the singular to designate one disaster or sometimes one of several shocks in the same disaster; cf., e.g., Mal. 442, 19; Evag. pp. 27, 1; 63, 10, 26; 155, 31; 159, 12; 212, 16; 227, 8, 34 (the meaning in 155, 25 is not clear).

³ Marcius evidently went to Antioch to exact a "contribution" or "gift" from the Seleucid ruler, Philip II, whom the Romans apparently supported against his brother, Antiochus XIII, the rival claimant to the throne: Philip had been placed on the throne by the Arab emir Aziz, who would no

There is, then, evidence for two earthquakes at Antioch in the first century B.C., one of which certainly damaged the city at some time between 67 (or 66) and 15 B.C., and the other of which presumably affected it shortly before 69 B.C. It has been the accepted belief that another passage in Malalas refers to a third earthquake which occurred in 148 B.C.: Μετὰ δὲ Δημητριανὸν ἐγένετο βασιλεὺς Ἀντίοχος ὁ ἐκγονος τοῦ Γρύπου, νιὸς Λαοδίκης, θυγατρὸς Ἀριαράθου, βασιλέως Καππαδόκων, ἐπη θ'. καὶ ἐπαθε τότε ὑπὸ θεομηνίας Ἀντιόχεια ἡ μεγάλη τῷ σγόδῳ ἐτει τῆς βασιλείας αὐτοῦ ἐπὶ τῶν αὐτῶν Μακεδόνων, μετὰ τὸ ἐξ ἀρχῆς τεθῆναι θεμέλιον τείχους ὑπὸ Σελεύκου τοῦ Νικάτορος μετὰ ἀλλα ἐπη ριβ', ὥραν ἡμερινὴν ἵ, μηνὶ περιτίω τῷ καὶ φεβρουαριώ κα'. καὶ ἀνενεώθη πάσα, καθὼς Δόμνος ὁ χρονογράφος συνεγράψατο· μετὰ δὲ τὸ πληρωθῆναι τὰ τείχη καὶ τὴν πόλιν πάσαν μετὰ ριβ' ἐπη ἐπαθε· καὶ βελτιών ἐγένετο.¹

The three dates given here do not agree with each other even approximately. Scholars have dated the event only by the statement that it occurred 152 years after the foundation of the city, which is assigned to the spring of 300 B.C. on the evidence of Eusebius and Malalas.² 148 B.C., the date thus determined, falls in the reign of Alexander Balas (150–145), but no satisfactory explanation has been offered for the statement that the event took place in the eighth year of "Antiochus *ekgonos* of Grypus," or for the circumstance that the eighth year of this king's reign does not, in Malalas' chronology, fall 152 years after the foundation of the city (see the table

doubt have been glad to pay something for Roman backing, even though Marcius may not have been acting in an official capacity. The hippodrome and the palace had presumably fallen into disrepair as a result of the disturbances which had prevailed in Syria for some time, or they may have been damaged in the earthquake mentioned by Justinus; and Marcius apparently used a part of the "gift" to repair them, in order to bolster Philip's prestige. The incident is discussed in my article "Q. Marcius Rex at Antioch," *Class. Phil.* xxxii, 1937, pp. 144–151. The significance of this passage for Malalas' sources and methods is discussed further in my article "Imperial Building Records in Malalas," which will be published in *Byz. Ztschr.* xxxviii, 1938.

¹ 207, 17–208, 14. The passage is preserved also in the Church Slavonic version of Malalas: V. M. Istrin, "Chronika Ioanna Malaly v Slavianskom perebodie, Kn. viii–ix," *Sbornik otd. Russ. iazyka i slavensnosti Imp. Akad. Nauk* (Sankt-Peterburg) lxxxix, 7, 1912, p. 7, 15–21, cf. p. 32. Here the reckoning of 122 years after the completion of the city does not appear, and after the words "as Domnus . . . wrote" the Slavonic version adds "and the same Pausanias" (see further below, p. 110, n. 2). The information given here concerning the readings of the Slavonic version has been taken from the English translation of Istrin's text, made by Professor Matthew Spinka, which has not yet been published.

² In the chronicle of Eusebius the foundation of Antioch is placed in the twelfth year of Seleucus, 301/0 B.C. (II, pp. 116–117 ed. Schoene); Malalas gives no indication of the year, dating the event only "on the 22nd of Artemisios or May, at the first hour of the day, as the sun was rising" (200, 17). The foundation is accordingly dated in the spring of 300 by Müller, *op. cit.*, pp. 24–27; H. F. Clinton, *Fasti Hellenici*, III², Oxford, 1851, p. 352, note i; and M. Erdmann, *Zur Kunde der hellenist. Städtegründungen*, Progr., Strassburg, 1883, pp. 27–30. These scholars are followed by K. J. Beloch, *Griech. Gesch.*, IV, 1², Berlin, 1925, p. 255; A. Bouché-Leclercq, *Hist. des Séleucides*, Paris, 1913–1914, p. 33; and V. Schultze, "Antiocheia," *Altchr. Städte u. Landschaften*, iii, Gütersloh, 1930, p. 6. B. Niese, *Gesch. der griech. u. makedon. Staaten*, I, Gotha, 1893, pp. 355, n. 2, and 394, gives the date as 301/0, and 300 is given by Benzinger, "Antiocheia," *R.E.* I, 2443, and E. S. Bouchier, *A Short History of Antioch*, Oxford, 1921, p. 19. The event is placed "immediately after the battle at Ipsus" by V. Tscherikower, "Die hellenist. Städtegründungen," *Philologus*, Suppl. xix, 1, 1927, p. 61 (he refers only to the passage in Eusebius). See further E. Honigmann, "Seleukeia (Pieria)," *R.E.* II A, 1186. Since the year is given by Eusebius alone, it is not beyond question; it is probably, however, at least approximately correct, and for convenience the year 300 is employed here as the date of the foundation. See also A. T. Olmstead, "Cuneiform Texts and Hellenistic Chronology," *Class. Phil.* xxxii, 1937, pp. 5–6.

below).¹ In the same way, no one, in accepting the date 148 B.C., has been able to reconcile the statement that the disaster occurred "122 years after the completion of the walls and of the whole city" with the evidence for the growth and completion of Antioch. Three rulers are said to have added quarters to the city: Strabo relates that after the first two quarters had been established, the third and fourth of the four quarters were founded by Seleucus II Callinicus (246–226) and Antiochus IV Epiphanes (175–164), and Malalas describes the establishment of a quarter by Epiphanes.² Libanius, on the other hand, mentions neither Callinicus nor Epiphanes as founders of quarters, but says that the island was established by Antiochus III, the Great (223–187).³ If we accept Malalas' statement that the earthquake, which has been dated in 148, also occurred "122 years after the completion of the walls and of the whole city," his reference to the completion of the city cannot represent any of

¹ Müller, *op. cit.*, p. 14, places the event in 148, in the reign of Balas, with the observation (n. 5), "Quem hic [Domnus] eo tempore regem Syriæ fuisse memorat, Antiochus, is a ceteris ignoratur, et fortasse Antiochiam tantum obtinebat. Sed rem hoc tempore non expedio." The difficulty is not solved by his suggestion (p. 65, n. 1) that *ekgonos Glaukou* be read for *ekgonos Grypou*, and that the earthquake may be dated in the regnal year of an Antiochus, although it occurred under Balas, because the people of Antioch, who hated the pretender, replaced him in their fasti with some Seleucid, as though the Seleucid were the real ruler. Müller further makes the passage the basis for a new hypothesis concerning the history of Antioch (see below, p. 110, n. 1). E. R. Bevan, *The House of Seleucus*, London, 1902, II, p. 218, n. 4, follows Müller (p. 14) in the date, recognizing the difficulty; he does not, however, mention the solution suggested by Müller on p. 65, n. 1. The date is accepted without hesitation by Förster, *op. cit.*, p. 120; Bouchier, *op. cit.*, p. 37; Schultze, *op. cit.*, p. 25; H. Leclercq, "Antioche, archéologie," in Cabrol, *Dict. d'arch. et de liturgie chrét.* I, 2, 2359, n. 4; and Capelle, *loc. cit.* Müller's statement (p. 14) that the earthquake occurred CXXXII years after the completion of the city is a typographical error.

² Strabo XVI, 2, 4, p. 750 C, transl. of H. L. Jones (Loeb Classical Library): "Antioch is likewise a tetrapolis, since it consists of four parts, and each of the four settlements is fortified both by a common wall and by a wall of its own. Now Nicator founded the first of the settlements, transferring thither the settlers from Antigonia, which had been built near it a short time before by Antigonus; the second was founded by the multitude of settlers; the third by Seleucus Callinicus; and the fourth by Antiochus Epiphanes." Malalas 205, 14: "The same king Antiochus, called Epiphanes, built . . . outside the city the so-called bouleuterion. . . . He also built other things outside the city, calling these parts after his own name the *polis* Epiphania, not building a wall for it, but this was the manner of its establishment [or construction, *oikesis*] on the mountain"; 233, 22: "For the part of the city by the mountain founded by Antiochus Epiphanes was in former times built without a wall. . . ."

³ Libanius, *Orat.* XI, 119, vol. I, p. 474, 23 ed. Förster: ". . . Antiochus the Great . . . added the newer part of the city, which the island surrounds, which is not much smaller than the old [part of the city] . . ." (see L. Hugi, *Der Antiochikos des Libanios [§§ 1–191]*, eingeleitet übersetzt u. kommentiert [Diss.], Freiburg-i.-d.-Schweiz, 1919, pp. 67, 154). The activity of Seleucus Callinicus and Antiochus the Great is evidently to be explained by the circumstance that Antioch was at that time becoming more important as the Seleucid administrative center and royal residence. Seleucia in Pieria was apparently founded shortly before Antioch, and, as its name indicates, was evidently intended to be the capital city in northwestern Syria; moreover, it seems to have been the capital and residence at least during the reign of Seleucus I, who was buried there (Honigmann, *op. cit.*, 1186–1188). During the Third Syrian War, however (246–241 B.C.), Seleucia was occupied by the Egyptians, and remained in their possession until it was re-taken by Antiochus III in 219 (Honigmann, *loc. cit.*; M. Cary, *A History of the Greek World from 323 to 146 B.C.*, London, 1932, pp. 86–91, 395–399). The activities of Seleucus and Antiochus in the expansion of Antioch at a period which coincides with the loss of Seleucia may be taken to imply that Antioch was now for the first time systematically developed as an administrative center and royal residence, and it further seems possible (if not, indeed, likely) that their work means that Seleucia had been regarded as the capital city until it fell into the hands of the Egyptians. The attribution of the foundation of the "third quarter" of Antioch to Seleucus by Strabo and to Antiochus by Libanius apparently means that Antiochus completed work which had been begun by Seleucus (see Müller, *op. cit.*, p. 51; Förster, *op. cit.*, pp. 116–121; Bouchier, *op. cit.*, p. 30).

the known traditions, for the year 270, 122 years before 148, falls in the reign of Antiochus I Soter (281–261), who is not said by any source to have made an addition to the city. The disagreement between the dating of the event “152 years after the foundation of the city” and by the regnal year of “Antiochus” makes it much more likely that the dating “122 years after the completion of the walls and of the whole city” constitutes another discrepancy.¹ It has been easy to accept the one reckoning which presents no outward difficulties and to reject or dismiss, as errors or incomprehensible confusions, the other two dates, which do not agree with the first or with each other; but it is evident that the implications of the three reckonings have not been exhausted, and that they must be investigated in detail before the date 148 B.C. can be accepted.

The disagreement among the three dates at once suggests that they might be those of different earthquakes which were, for some reason, consolidated in Malalas’ account. Evidence of this is found in the reckoning of the event 122 years after the completion of the walls and of the whole city. An earthquake dated 122 years after the establishment of the island by Antiochus the Great (223–187) or 122 years after the establishment of a quarter by Antiochus Epiphanes (175–164) would fall in the years 101–65 or 53–42 B.C. and thus could be identical with the disaster recorded by Justinus or with that which, according to Malalas, occurred between the visits of Marcus Rex and Agrippa to Antioch. Such a reckoning would, however, almost certainly be made with reference to the work of Antiochus Epiphanes rather than that of Antiochus the Great, for Epiphanes’ work, being the last foundation, would more properly be called “the completion of the walls and of the whole city,” and being on the mainland it would represent the “completion of the walls” more naturally than the establishment of the island would.²

¹ Müller indeed evolves from the passage a new hypothesis of the development of the city (*op. cit.*, p. 29): he believes that the statements that the earthquake occurred 152 years after the foundation of the city and 122 years after its completion mean that the city was completed thirty years after its foundation, and suggests that by the “completion” is meant the addition of the second of the four quarters mentioned by Strabo, that “founded by the multitude of settlers,” which would thus be dated in 270 B.C., the eleventh year of Antiochus Soter. Müller here, however, overlooks the circumstance (which he recognizes elsewhere, p. 49) that Antiochus Soter is not said by any source to have made an addition to the city. The first two of the quarters mentioned by Strabo were probably founded simultaneously, for the separate accommodation of the Greek and the native elements of the population; and if the second quarter had been established by a ruler other than Seleucus Nicator we should perhaps expect Strabo to record the founder’s name, as he does in the case of the third and fourth quarters. Förster (*op. cit.*, p. 120, n. 76) hesitates to accept Müller’s suggestion.

² Objection to this interpretation is not necessarily found in the absence from the Church Slavonic version of the reckoning from the completion of the city (see above, p. 108, n. 1). This might be thought to show that the reckoning was added to the Greek text after the Slavonic version was made, and might be taken to mean that the date was added in an effort to supply a synchronism; one might argue further that the person who made the addition did not necessarily have evidence for an earthquake which occurred 122 years after the completion of the city. It is possible, however, that the Slavonic version here omits material present in the Greek text when the version was made; see V. Jagić, *Archiv. f. slav. Philol.* ii, 1877, pp. 4–9; M. Weingart, *Byz. kroniky v lit. Cirkevnoslovanske* (Spisy filos. fak. univ. Komenskeho v Bratislave, Cislo ii, 1922), Cast I, pp. 49–51; and C. E. Gleye, *Byz. Ztschr.* v, 1896, p. 430. Independently of this, the precision of the reckoning and its disagreement with the other two datings both indicate that it reflects an independent tradition rather than an error or an unsuccessful attempt at a synchronism; and since there is, both in Malalas himself and in Justinus, other evidence for earthquakes which might have been dated 122 years after the “completion of the city,” it is evident

Since two of Malalas' reckonings could refer to disasters at different dates, and since the third reckoning, by the regnal year of "Antiochus," could not refer to the earlier of these disasters, it is clear that the three dates might be those of either two or three disasters which were confused. That this is the case will be shown beyond doubt by investigation of Malalas' account of the sequence and chronology of the Seleucid rulers: it will be found that he might have confused various kings and might have misunderstood methods by which events could have been reckoned, and so may have mistakenly identified earthquakes which were dated by different reckonings.¹ The problem will thus become one of discovering why and how Malalas might, in the present instance, have confused two or more earthquakes. The dates at which the various disasters might have occurred will emerge in the course of the discussion.

II

In the following table Malalas' information concerning the succession of the Seleucid kings is outlined at the left, with the accepted sequence at the right.² His account of the Seleucids is preserved in the Church Slavonic version as well as in the Greek text of the Codex Baroccianus at Oxford: the two texts agree save in a few instances, so that the Greek text (Ox.) is used, and the Slavonic version (Slav.) is cited only when it is evident that it is more complete or correct.³

	Years of Reign	
	Given by	
Malalas (204, 17–208, 21)	Malalas	
Seleucus Nicator, died aged 72	Not given	Seleucus I Nicator, died 280/1 ⁴
Antiochus Soter; married his step-mother Stratonice and had 2 sons, Seleucus (died as a child), and Antiochus Theoeides	20	Antiochus I Soter, 281–261
Antiochus Theoeides	15	Antiochus II Theos, 261–246

that even if Malalas were not himself responsible for the combination of the third reckoning with the other two, the statement that an earthquake occurred 122 years after the completion of the city may show that there was evidence for such an earthquake, and that the passage accordingly represents the combination of traditions for at least two disasters.

¹ The possibility that earthquakes in the Seleucid period may have been subject to confusion is increased by the conditions of the records, which is indicated by the circumstance that the numbered earthquakes in the history of Antioch were reckoned *μερὰ τῶν Μακεδόνων* (see above, p. 107, with note 1). There was thus evidently no traditional or "official" list in which disasters during the Seleucid period were recorded (or at least no such list was at Malalas' disposal). This again is an indication of the difference between the material which was available to Malalas for the history of Antioch in the Seleucid and the Roman periods (see also below, p. 117, n. 1).

² The lengths of some of the reigns are still not certain, but since it is not the purpose of this study to evaluate Malalas' information in this respect, the chronology of Bouché-Leclercq is followed, unless otherwise stated (see his table, *op. cit.*, pp. 640–641). Reference may also be made to Wilcken, "Antiochos," *R.E.* I, 2450–2487, and "Alexandros," nos. 22–23, *ibid.*, 1437–1439; Stähelin, "Seleukos," *R.E.* II A, 1210–1246; and Willrich, "Demetrios," nos. 40–42, *R.E.* IV, 2795–2802.

³ See the Church Slavonic text cited above, p. 108, n. 1.

⁴ Stähelin assigns the death of Seleucus to the end of 281 or the beginning of 280, *R.E.* II A, 1225–1226; W. Kolbe limits it to Dec. 281 or Jan. 280, "Beiträge zur syr. u. jüd. Gesch.," *Beiträge zur Wiss. vom Alt. Test.*, N.F. Heft 10, Stuttgart, 1926, pp. 14–15.

Seleucus Callinicus, son of Antiochus Theocides and Berenice	24	Seleucus II Callinicus, 246–226; son of Antiochus II and Laodice, Berenice being the second wife of Antiochus II
Alexander Nicator ¹	4	Seleucus III Soter, 226–223; originally named Alexander, took the name Seleucus at accession
Antiochus Grypus	36	Antiochus III, the Great, 223–187
Seleucus Philopator	10	Seleucus IV Philopator, 187/6–176/5 ²
Antiochus Epiphanes ³	12	Antiochus IV Epiphanes, 175–164
Antiochus Glaucus Hierax, son of Antiochus Epiphanes	2	Error for Antiochus V Eupator (son of Epiphanes), 164–162; the only Antiochus called Hierax was the younger son of Seleucus Callinicus, who never ruled, and died 227. ⁴ "Glaucus" is not attested for any Seleucid
Demetrianus, son of Seleucus ⁵	8	Demetrius I Soter, 162–150
	131 years	281–150 B.C. = 131 years
Antiochus <i>ekgonos</i> of Grypus, son of Laodice, daughter of Ariarathes, king of Cappadocia. The earthquake occurred in the 8th year of his reign	9	
Antiochus Euergetes; ⁶ his son Antiochus Cyzicenus married Brittane, daughter of Arsaces		Alexander Balas, 150–145 (usurper)
After Antiochus Euergetes there reigned 9 of his descendants until the reign of Antiochus Dionysus the Leper, father of Cleopatra and Antiochis. ⁷		Demetrius II Nicator, 146–125
211, 4. In the 15th year of Antiochus Dionysus, Tigranes made war on Antiochus and took Antioch, which was later occupied by Pompey		Antiochus VI Dionysus, 145–142
		Tryphon Diodotus, 140–137 (usurper)
		Antiochus VII Euergetes Sidetes, 138–129; Antiochus IX Cyzicenus was his son, but he married Cleopatra IV and Cleopatra Selene
		Alexander II Zabinas, 128–123
		Antiochus VIII Grypus, 125–96
		Seleucus V, 125
		Antiochus IX Cyzicenus, 116–95
		Antiochus X Eusebes, 94–83
		Antiochus XI Epiphanes Philadelphus, 92
		Philip I, 92–83
		Demetrius III, 95–88
		Antiochus XII Dionysus, 89–84
		[Tigranes, 86 or 84–69]
		Antiochus XIII Asiaticus, 68 and 65 or 65/4 ⁸
		Philip II Barypous, 67/6

¹ Ox. has "Alexander Nicator, 36 years" (205, 5), while Slav. has "Alexander Nicator, 4 years; and Antiochus Grypus, 36 years" (6, 3).

² This is Stähelin's chronology (*R.E.* II A, 1242 ff.), which is more instructive for comparison with Malalas' evidence than the years 187–175 given by Bouché-Leclercq.

³ In 234, 1 Malalas calls Antiochus Ἀντιόχου τῷ ἐπιφανεστάτῳ βασιλέως.

⁴ Wilcken, *R.E.* I, 2457 ff.

⁵ With "Demetrianos" for "Demetrios," compare "Markianos" for "Markios" in 225, 8. Further examples of Malalas' distortion of names are listed in my article cited above (p. 107, n. 3), p. 144, n. 5.

⁶ Slav.: "Antiochus Euprepes" (7, 22).

⁷ Ox.: "Antiochus Dionicus" (208, 13, 15; 211, 5; 212, 9, 17, 20); Slav.: "Antiochus Dionysus" (7, 28, 31; 10, 11, 13).

⁸ On the chronology of Antiochus XIII and Philip II, see my article cited above, p. 107, n. 3.

212, 9. Pompey restored the kingdom to Dionysus, who left it to Romans at his death; the Seleucid kings had ruled 263 years

The reckoning ($312/1 - 263 = 49/8$ B.C.) refers to the introduction of the era of Caesar at Antioch, not to the Roman occupation of Syria¹

The following rulers are mentioned in Malalas' account of the Roman period, but do not appear in his account of the Seleucid period:

225, 9 Philip Barypous

Philip II, 67/6

234, 1 Antiochus Philadelphus

Antiochus XI Epiphanes Philadelphus, 92

235, 18 Antiochus Philopator

Antiochus IX or XII (?)

Of the peculiarities of this list the most striking are: (1) although Malalas records the lengths of the reigns of only the earlier rulers, and although the names and regnal years which he gives sometimes differ from the correct sequence, the total number of regnal years in the first part of his list, exclusive of the reign of "Antiochus *ekgonos* of Grypus," agrees exactly with the actual total of the reigns which the account purports to represent;² (2) after the reign of "Antiochus *ekgonos* of Grypus" the list

¹ On the date of the introduction of the era of Caesar at Antioch, see Stauffenberg, *op. cit.*, pp. 108-117.

² With Malalas' account of the Seleucids may be compared his list of the Lagids, which he quotes from Eusebius and Pausanias; it is to be noted that he assigns numbers in sequence to most of them. Variants are found in the Church Slavonic version (see Istrin's text, cited above, p. 108, n. 1, pp. 2 ff., 31); the chronology at the right is taken from W. Liebenam, *Fasti consulares imperii Romani*, Bonn, 1909, p. 126.

	Years of Reign Given by Malalas	Ptolemy
Malalas (196, 12-197, 17)		
Ptolemy, son of Lagos, the astronomer second, his son Ptolemy	42 Not given	I Soter, (323) 304-285, died 283
third, Ptolemy Philadelphus	37	II Philadelphus, 285-246
fourth, Ptolemy Euergetes	25	III Euergetes, 246-221
fifth, Ptolemy Philopator	17	IV Philopator, 221-204
sixth, Ptolemy Epiphanes (years supplied by Slav.)	25	V Epiphanes, 204-181
seventh, Ptolemy Philometor	11	VI Philometor, 181-145 (170-163 with Ptolemy VIII)
"and five other Ptolemies ruled for 92 years [Slav., 107]"		VII Eupator, 145
twelfth, Ptolemy Dionysus	29	VIII Euergetes II, 145-116, with the two Cleopatras
thirteenth, Cleopatra [Slav., 29 years]	22	IX Neos Philopator, 130
"the 13 [Slav., 20] Ptolemies . . . ruled . . . from Ptolemy son of Lagos to Cleopatra the daughter of Dionysus for 300 years until the 15th [Slav., 5th] year of Augustus . . ."		X Soter II, 116-107, with Cleopatra Kokke; again 88-80
		XI Alexander I, 107-88, with Cleopatra
		XII Alexander II, 80
		XIII Neos Dionysus Auletes, 80-51
		Ptolemy XIV and Cleopatra, 51-47
		Ptolemy XV, 47-44
		Ptolemy XVI Caesarion and Cleopatra, 44-30

is summary and incomplete, and Malalas does not give the lengths of the reigns of the rulers whom he does mention; he makes Antiochus XII the last of the line; (3) three kings are mentioned in the account of the history of Antioch after the Roman occupation, who do not appear in the account of the Seleucid period. As far as the reign of Antiochus *ekgonos* of Grypus, then, Malalas' chronology is based at least ultimately upon reliable material; and the disappearance of the chronology after this reign implies that the change is somehow connected with the reign of "Antiochus" and with the information given concerning him. It is evident that this king's position in the list may have some relation with the difficulties found in the way in which the earthquake is dated; and this gives further reason to believe that the conflicting reckonings are not references to otherwise unknown traditions, or errors made in an effort to supply additional ways of fixing the date.

The first problem is the identification of the "Antiochus *ekgonos* of Grypus" to whose reign the earthquake is assigned. Since, to Malalas, Antiochus III was "Grypus," a search of the *ekgonoi* of that king is indicated. *Ekgonos* ordinarily means "descendant";¹ it sometimes means "grandchild,"² but the interpretation of the word as it is used in the present passage plainly cannot be limited to one sense or the other, especially since Malalas might not have understood or been sure of the meaning of the word if it had been used by his source. Accordingly, one can proceed only on the supposition that the passage means that "Antiochus" was a descendant of Grypus (i.e. Antiochus III), who may or may not have been a grandson of that king.³

It is unlikely that "Antiochus" would be one of the sons of Antiochus III, Seleucus IV Philopator (187/6-176/5) or Antiochus IV Epiphanes (175-164), since neither ruled for nine years and since Malalas mentions both of them independently of the "Antiochus" to whose reign he assigns the earthquake.⁴ The grandsons of Antiochus III who reigned were Antiochus V Eupator, 164-162 (son of Antiochus Epiphanes) and Demetrius I Soter, 162-150 (son of Seleucus Philopator); but again neither reigned for nine years, and again Malalas mentions both of them independently of his "Antiochus." The great-grandsons of Antiochus III who reigned were: Alexander Balas (150-145), allegedly a son of Antiochus Epiphanes, but in reality a pretender; Demetrius II Nicator, 146-125 (son of Demetrius I); and Antiochus VII

Malalas refers elsewhere to the Lagids only in his description of the war of Antiochus Epiphanes with a Ptolemy to whom he does not apply an epithet (205, 23 ff.); on the sources of Malalas' information concerning the Lagids, see Stauffenberg, *op. cit.*, p. 149, n. 45.

¹ See Liddell-Scott-Jones, s.v., also s.v. *egganos*.

² This sense alone is cited by Sophocles, s.v.

³ The Church Slavonic version (see above, p. 108, n. 1), p. 7, 15, 21, and p. 32, renders *ekgonos* by *bnouk*, "grandson," but this shows only what the translator thought *ekgnos* meant, and the version is so often inaccurate in such matters (see Weingart, *loc. cit.*) that it is impossible even to suppose that this indicates what the accepted meaning of *ekgnos* was when the version was made. Elsewhere Malalas employs both *egganos* (375, 20) and *ekgnos* (429, 12-13, twice) in contexts which make it certain that both words are used to mean "grandson"; he does not use *ekgnos* elsewhere, but his failure to distinguish it from *egganos* would indicate that he might use *ekgnos* (and perhaps *egganos* as well) also in the sense of "descendant."

⁴ The latter argument might not, however, necessarily be valid by itself, since, as will be seen, it is likely that the "Antiochus" of Malalas is really Antiochus VII, whom Malalas mentions also under his true name.

Euergetes Sidetes, 138–129 (son of Demetrius I), who ruled during the captivity of his older brother Demetrius II.¹ Attention at once centers upon Antiochus VII, because of his resemblance to the “Antiochus” of Malalas in two respects: first, he is the only great-grandson of Antiochus III who ruled for nine years,² and second, his mother was presumably named Laodice: at least his father (Demetrius I) was married to a Laodice, and she is the only wife whom he is known to have had.³

The agreement between the career and antecedents of Antiochus VII and those attributed by Malalas to the “Antiochus” in whose reign he places the earthquake makes it seem very likely that this “Antiochus” is to be identified with Antiochus VII.⁴ If one seeks to determine how a mistaken reference to Antiochus VII could ap-

¹ Wilcken, *R.E.* I, 2478–2480.

² For the duration of the reign of Antiochus VII, see Kolbe, *op. cit.*, pp. 58–62. Philip I is the only other descendant of Antiochus III, who ruled for nine years (92–83); it is extremely difficult to assign the earthquake to his reign (see below, n. 4).

³ We know only from Livy, *Periocha* L, that Demetrius’ wife was named Laodice. She has been thought to be Demetrius’ sister, whom he married himself after Ariarathes V of Cappadocia had refused her hand (Stähelin, “Laodike,” no. 20, *R.E.* XII, 707–708; Willrich, “Demetrios,” *R.E.* IV, 2797; Bouché-Leclercq, *op. cit.*, p. 589), but it is possible that the Laodice whom Demetrius married was the daughter of Ariarathes IV, whom he might have married when he placed Orophernes, son of Ariarathes IV and brother of Ariarathes V, on the throne of Cappadocia (Justinus XXXV, 1–2); and even if Laodice the wife of Demetrius was not the daughter of Ariarathes IV, Malalas or his source might have thought that she was. The queen who appears with Demetrius on his coins is not named; see E. Babelon, *Les rois de Syrie*, Paris, 1890, p. 101, no. 791; *Brit. Mus. Cat., The Seleucid Kings of Syria*, London, 1878, p. 50; and U. Kahrstedt, *Klio* x, 1910, pp. 278 ff.; K. Regling’s note in an article by H. Dressel, *Ztschr. für Numism.* xxxiii, 1922, p. 166, n. 5; H. Volkmann, *ibid.* xxxiv, 1924, pp. 54–55; and G. H. Macurdy, *Hellenistic Queens*, Baltimore, 1932 (Johns Hopkins University Studies in Archaeology, xiv), p. 75.

⁴ It is not likely that the original of Malalas’ “Antiochus” is Antiochus VI (145–142), son of the pretender Alexander Balas (150–145), for he did not reign nine years, even if his father’s reign be counted as six years, although he might, by courtesy, have been called an *ekgonos* of Antiochus III, being allegedly his great-great-grandson. Antiochus V (164–162), son of Antiochus IV (175–164), and grandson of Antiochus III, was, according to a Babylonian inscription (Wilcken, *R.E.* I, 2476), co-ruler with his father in 170 B.C., and if he was made co-ruler in 171, his reign might have been reckoned at nine years. An earthquake in the eighth year of his reign might thus be placed in 163. It might be thought that Malalas, by interpreting 152 years after the foundation of the city to mean 152 years from the beginning of the Seleucid era, could have confused an earthquake in the eighth year of his reign with one dated 152 years after the foundation; but the year 152 Sel. corresponds to 160 B.C., in the reign of Demetrius I (162–150), and it is difficult to see how Malalas, even after such a procedure, could make an “Antiochus” who was the result of such a confusion into the successor of Demetrius I. A more serious objection is, of course, that the description of Malalas’ “Antiochus” does not fit Antiochus VI as well as it does Antiochus VII. 122 years before 160 B.C. would correspond approximately with the death of Seleucus I, but this event could scarcely have been confused with the completion of the city. The other possible explanations are even less attractive. The Grypus under whose *ekgonos* the earthquake is placed might be Antiochus VIII Grypus (125–96). He had two sons named Antiochus, Antiochus XI (92), and Antiochus XII (89–84), but neither reigned nine years and there is no reason to assign the earthquake mentioned by Justinus to their reigns. Philip I, another son of Grypus, reigned nine years (92–83), but it is difficult to see in him the original of the “Antiochus” of Malalas, when the description of this ruler fits Antiochus VII so much better; besides, it would be difficult to explain why Malalas should use *ekgonos* here to mean son, and how a Philip could be transformed into an Antiochus. A period 122 years before Philip’s reign, i.e. 214–205, would fall in the reign of Antiochus the Great (223–187), and since this ruler is said to have established the island, there might have been occasion to use this reckoning to date an earthquake which occurred under Philip I; but a period 152 years before Philip’s reign, i.e. 244–235, would fall in the reign of Seleucus Callinicus (246–226), so that the reckoning of an earthquake 152 years after the foundation of the city could not conceivably either refer to a disaster in Philip’s reign or furnish the occasion for a transfer or confusion of such an earthquake.

pear in Malalas' account of the earthquake, it will at once be noticed that Malalas does not say who the father of his "Antiochus" was; and this, coupled with his failure to mention Demetrius II, suggests that the complicated succession at this period led Malalas or his source to confuse Demetrius II with Demetrius I. Since Antiochus VII ruled during the captivity of his brother Demetrius II, and since Demetrius was the elder of the two, Antiochus might have been considered to have succeeded Demetrius; accordingly the sequence given by Malalas might have been produced either by compression of events, leading to confusion of Demetrius II with Demetrius I, or by such a confusion leading to the compression which we find. That Malalas lists Antiochus VII as the son and successor of his "Antiochus," who might really be Antiochus VII, does not constitute an objection to the identification. Certainly the reference to Antiochus VII under his correct name and in approximately his proper chronological position shows that Malalas would be aware of his identity; but it does not by any means follow from this that Malalas might not, for a special reason, place this ruler under two names in different positions in his list. The deficiencies of knowledge or interpretation revealed by the latter part of the account of the Seleucids (especially in the position of Antiochus XII, who is made the last of the house) make it almost unnecessary to seek a precise explanation of how a reference to Antiochus VII and to an earthquake during his reign might be misplaced: the confusion of an earthquake which occurred in 130 B.C. (i.e. in the eighth year of his reign) with another which occurred in 148 B.C. might be either the cause or the result of such a misplacement.

A still more plausible explanation of the confusion may, however, be suggested, namely the existence of different sources from which Malalas or his source might have obtained information concerning the Seleucid rulers and the Hellenistic history of Antioch. Attention has been called to the way in which there appear, in Malalas' account of the Roman period, three Seleucid kings who are not mentioned in the account of the Seleucid period; this indicates that his information about these rulers comes from a source which treated the history of the city only in the Roman period, rather than from one which covered the Seleucid period. There is other evidence that Malalas' material for the history of Antioch under the Romans is derived ultimately

There is even less reason to find in Antiochus XIII, who was on the throne in 68 and again in 65 or 65/4, the original of Malalas' "Antiochus." His regnal years might conceivably have been counted from the death of his father Antiochus X, which seems to have occurred between 83 and 75 (Wilcken, *R.E.* I, 2485), and not from his own accession in 68, but even if his father's death is placed as late as 75, his reign could not have been reckoned at nine years; furthermore, he was not a descendant of Antiochus Grypus. Periods 122 or 152 years before his actual reign (i.e. 190, 187/6 and 220, 217/6 B.C.) would fall in the reign of Antiochus the Great (223-187), but while there might be occasion to reckon an earthquake which occurred during his rule from the establishment of the island attributed to Antiochus the Great, there would be no possibility of reckoning an earthquake under Antiochus XIII 152 years from the establishment of the city or of confusing such an earthquake with another dated by such a reckoning. Finally, the account might be thought to contain evidence of a disaster in the time of Philip II (67/6), which might have occasioned Pompey's rebuilding of the bouleuterion and the repair of the hippodrome and the palace by Marcus Rex (see above, p. 107, with note 3); but the objections found in connection with Antiochus XIII would arise here also. The existence of these possibilities illustrates the difficulties created in the interpretation of "122 years after the completion of the city" by the circumstance that several quarters were added to it, and by the attribution of the island quarter to both Seleucus Callinicus and Antiochus the Great.

(though not necessarily immediately) from a source different from that which he used for the Seleucid period;¹ his account of the earthquake, however, raises the question whether he might not at this point have used different sources, one of which mentioned an earthquake which occurred 152 years after the foundation of the city and the other of which recorded a disaster in the eighth year of "Antiochus": in such circumstances Malalas might easily suppose that the disasters were identical and might accordingly place "Antiochus *ekgonos* of Grypus" in his present position in the list in a not wholly successful effort to make the eighth year of his reign fall 152 years after the foundation of the city. Under these conditions, Malalas might naturally at the same time follow the other source (i.e. that which dated the earthquake 152 years after the foundation) in listing Antiochus VII in the position in which he appears.

Still another procedure might have been operative either instead of such a procedure or as a part of it. The only era which Malalas uses in dating events in the history of Antioch is the era of the city, corresponding to the Caesarean era: he does not in any other instance date an event from the foundation of the city, and he does not give the year of the foundation either by the year of an era or by the regnal year of Seleucus I.² Furthermore, he does not give the length of Seleucus' reign, but be-

¹ Most important of all the evidence in this connection is, of course, the difference between the fairly extensive material concerning the city's history and monuments which first makes its appearance in the account of the reign of Julius Caesar, and the comparative paucity of such material for the Seleucid period (see the collection of passages in Stauffenberg's chapter "Die Kaiserbauten in Antiochien," *op. cit.*, pp. 445-455, also pp. 112, 118). The difference in the amount and kind of material available to Malalas for the Seleucid and the Roman periods which is indicated by his reckoning of a numbered series of earthquakes in the city's history "after the Macedonians" has been pointed out above (p. 107, with note 1; p. 111, n. 1). Evidence of still a different kind is given by the way in which Malalas mentions, in his account of the Roman period, buildings erected before the Roman annexation of Syria. In four instances he mentions these earlier buildings in connection with events which affected them during the Roman period (234, 11-17; 235, 18-236, 1; 319, 2; and the Tuscan fragment, II, p. 15, in Mai, *Spicilegium Romanum*, II, 2, Rome, 1839); and since these buildings are not mentioned in his account of the Seleucid period, the material concerning them is evidently derived from a source which treated the history of the city only after the Roman occupation: for although his account of the Seleucid period at Antioch is brief, it is scarcely credible that Malalas, one of whose chief interests was building activities, would have neglected to mention in it buildings erected at that time if they had been recorded in a source for the period, while it is easy to suppose that if he found references to them only in a source for the Roman period, he would mention them only in his account of this period, without troubling to insert notices of them in their proper chronological contexts. Further evidence of a difference of sources is found in Malalas' statements concerning the wall at Antioch, which he attributes to Tiberius: he twice expressly declares that Antiochus Epiphanes did not build a wall about the section of the city which he began to develop, first in his account of the reign of Antiochus (205, 21), and again in the description of the wall, which he says Tiberius built about this quarter (233, 22-234, 3; other Seleucid buildings are mentioned, 234, 3-9, in connection with this latter passage, but it is not apparent why Malalas cites them here: he does not mention them in his account of the Seleucid period). The polemical attitude thus exhibited suggests that Malalas was in strong disagreement with one of his sources, and that he was following a source for the Roman period against a source for the Seleucid period (or perhaps reproducing one source which expressed disagreement with another; cf. Förster, *op. cit.*, p. 118).

² For Malalas' account of the foundation of the city, see above, p. 108, n. 2. He sometimes dates events in the history of Antioch by the era of the city (corresponding with the era of Caesar, reckoned from 49 B.C.), either alone (235, 16; 248, 11; 286, 7; 296, 8; 393, 7; 400, 9) or in conjunction with other methods (regnal years, consuls, indictions, etc.: 243, 10; 275, 3; 319, 1; 369, 5). Other events in the city's history are dated by other methods (indictions, regnal years) but not by the era of the city or any

gins to record the lengths of the reigns with that of Antiochus I. His dating of an earthquake 152 years after the foundation is thus, according to his own system, meaningless; and while he might have taken this chronology from a source which employed such a mode of reckoning, its appearance in his own work raises the question whether Malalas understood it, and whether it can be accepted at face value. His failure to give the year of the foundation and the length of the reign of Seleucus I makes it seem quite possible either that Malalas could take a statement that an event occurred 152 years after the foundation of the city to be a calculation from the death of Seleucus, or that he might take a calculation from the death of Seleucus to be a reckoning from the foundation of the city.¹ If, thus, an event were actually placed in 148 B.C. by the calculation of 152 years from 300 B.C., Malalas might believe that the reckoning was from Seleucus' death (281/0) and might thus identify the event with one dated by the regnal year of Antiochus (in either the same source or a different one) in 130 B.C., the discrepancy between the years in such a case being so slight that it would neither form an obstacle to the identification nor call for an adjustment of the data reproduced. If, on the other hand, an event were dated in or about 130 (in one source or in different sources) both by the regnal year of Antiochus and by a reckoning from the death of Seleucus I, Malalas might believe that the latter calculation was made from the foundation of the city and might accordingly transfer the event to what he would consider its proper chronological position.²

other era (216, 10; 338, 15; 396, 10; 417, 5; 417, 9; 419, 5; 425, 10; 479, 23). Events not connected with the history of Antioch are sometimes dated by the era of the city, either alone or combined with other reckonings (227, 1; 241, 8; 321, 22; 333, 5; 342, 3 [cf. Chilmead, *ad loc.*]; 367, 8; 376, 1, 14; 391, 1; 401, 24; 425, 1). Dates in the history of the city are sometimes given by the month and day (once also by the hour) without indication of the year (200, 17; 212, 15; 272, 21; 278, 16). This might not necessarily be significant, for the year may have been lost from the text, Malalas might have had no evidence for the year, or he might have had conflicting evidence or have been himself uncertain. In the case of the earthquake, however, there is evidently some connection between the confusion in the reckonings and the absence of a specific date for the foundation of the city and of a statement of the length of the reign of Seleucus I.

¹ Misunderstanding of eras and methods of reckoning of all kinds seems possible on the part of Malalas; perhaps his use elsewhere only of the era of Antioch reckoned from 49 B.C. shows that he did not understand the operation of the Seleucid era. Certainly ignorance in the employment of reckonings in Seleucid history is revealed by the statement (see the table above) that when Syria passed to the Romans the Seleucids had ruled for 263 years (312/1 B.C. – 263-49/8 B.C.).

² This explanation assumes that even though he might not have understood some of the reckonings which might have been employed, Malalas might be able to fix the date of the foundation of the city at least approximately; this may be indicated by the way in which the calculation of the regnal year of the "Antiochus" whom Malalas makes the successor of Demetrius I is, according to Malalas' chronology, nearly correct. If a successor of Demetrius I (162-150) reigned for nine years, his eighth year would be 142 B.C., and 152 years before this gives 294 B.C.; but according to Malalas Demetrius ruled for eight years, not twelve. Thus, if his reign were thought to be 162-154 instead of 162-150, the eighth year of a successor would be 146, and 152 years before this would be 298 B.C. Accordingly it might be thought that the earthquake dated 152 years after the city's foundation should be placed in 146 rather than in 148, especially since Eusebius' date for the foundation (301/0) may not be exact, and since Malalas might have shortened Demetrius' reign in order to bring his successor's regnal year into agreement with other evidence for the earthquake; but the possibility that Malalas was making an approximate calculation and the uncertainty as to the factors underlying his procedure make it unsafe to draw any deduction from these discrepancies, and the date 148 B.C. is retained here, without, however, any supposition that it is correct. It does not seem possible to obtain, from the results of the present study, evidence for or against the exactness of the date in Eusebius (see above, p. 108, n. 2).

III

Three conclusions, then, are possible: (1) an earthquake occurred 152 years after the foundation of the city, i.e. in 148 B.C., and the dating of the event by the regnal year of an "Antiochus," probably Antiochus VII, is incorrect; (2) the probable dating of an earthquake in 130 B.C. by the regnal year of Antiochus VII is correct and the dating of the event in 148 B.C., 152 years after the foundation of the city, is incorrect; (3) there was one earthquake in 130 B.C. and another in 148 B.C., the evidence for which is combined. It seems impossible, with the evidence at present available, to make a choice among these explanations, although the last is the simplest.¹

Various factors which might have led to such confusions, and the processes by which they might have arisen, have been pointed out: confusion of rulers might have been the cause of the confusion and misplacement of earthquakes, or the confusion of earthquakes dated in different ways might have led to the misplacement of "Antiochus *ekgonos* of Grypus," and if the use of different sources were responsible, the information derived from different sources might still appear in Malalas' account, even after the confusions and misplacements had been made; or possibly Malalas confused the death of Seleucus with the foundation of the city, and so confused disasters dated by reference to these events.

Precisely how much responsibility should be assigned to these factors is difficult to determine, and it seems hopeless to recover the way in which Malalas' account reached its present form, for in the circumstances no satisfactory answers can be found to the questions: (1) whether evidence for an earthquake dated by a regnal year of "Antiochus" could have been combined with evidence for one dated 122 years after the completion of Antioch, and the resulting combination in turn combined with evidence for a disaster dated 152 years after the foundation of the city; (2) whether evidence for an earthquake dated by a regnal year of "Antiochus" could have been combined with that for an earthquake dated 152 years after the foundation of the city, and the evidence for a disaster dated 122 years after its completion combined with the result; (3) whether the combinations might have been made simultaneously. Perhaps the chief difficulty is the uncertainty as to the original meaning of "152 years after the foundation of the city," and the question of the way in which Malalas may have interpreted this reckoning; this makes it impossible to determine the point of departure for the existing confusion. In any case, it is instructive to find that no attempt was made to harmonize the dates exactly.²

¹ For the history of Antioch, the investigation has shown that there is evidence for an earthquake in or about 130 B.C., and that there is some reason to doubt that one occurred, as has been supposed, in 148; and that the earthquake mentioned in Malalas' account of Agrippa's visit might be identical with one which seems to have been dated 122 years after the reign of Antiochus Epiphanes and so would be placed in the years 53-42 B.C. The significance of the new evidence does not happen to be as clear with regard to the earthquake in the late 70's recorded by Justinus, but this point is not vital, since other evidence makes it a presumption that this disaster affected the city.

² It may be possible to see both the result and the operation of a part of the chronological confusion in the way in which Malalas speaks of the earthquake of A.D. 37. He calls this *τὸ δεύτερον πάθος μετὰ τοῦ Μακεδόνας* but does not specifically mention the first in this reckoning, or rather does not call any disaster the first (see above, p. 107, with n. 1). If he had named the first, it is reasonable to assume, from the way in which he describes that of A.D. 37, that he would have called the first *τὸ πρῶτον πάθος*

The difficulty of determining exactly what may be responsible for the condition of Malalas' account is, however, secondary in importance to the demonstration of the nature of the chronological confusion preserved in it, and to the discovery that there is a connection between this confusion and the incompleteness and inaccuracy of Malalas' account of the succession of the Seleucid kings.

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μετὰ τοὺς Μακεδόνας and would have called the second simply *τὸ δεύτερον τάχος*, after the fashion in which he records the third, fourth, and so on. This implies that Malalas either did not know, or could not make out from conflicting or incomprehensible evidence, which was the first earthquake "after the Macedonians." But there is evidence, in his account of Agrippa's visit, that an earthquake occurred between the Roman occupation and 15 B.C.; and there is a possibility, as has been seen, that an earthquake was reckoned 122 years after the reign of Antiochus Epiphanes and so would be placed in 53-42 B.C. and could be identical with that mentioned in connection with Agrippa. Accordingly, it seems possible that Malalas was uncertain, or was unable to determine, which was the "first" earthquake "after the Macedonians," because he could not understand the way in which this earthquake was dated; and this might furnish the explanation not only of the way in which the disaster of A.D. 37 is described, but of the confusion of a disaster dated 122 years after the time of Epiphanes with another disaster. On Malalas' list of numbered earthquakes, see R. Förster, "De Libanio, Pausania, templo Apollinis Delphico," *Album gratulatorium in honorem H. van Herwerden*, Utrecht, 1902, pp. 45-54.

THIRTY-NINTH GENERAL MEETING OF THE ARCHAEOLOGICAL INSTITUTE OF AMERICA

IN CONJUNCTION WITH THE AMERICAN PHILOLOGICAL ASSOCIATION
AND THE LINGUISTIC SOCIETY OF AMERICA

Philadelphia, Pennsylvania, December 28-30, 1937

SUMMARIES OF PAPERS SUBMITTED BY THE AUTHORS

HELLADIC BOTHROI: J. PENROSE HARLAND, University of North Carolina.

The *bothroi* at Tsoungiza, the Bronze Age site at Nemea, are of interest and importance for the light they seem to throw on the problem of the purpose served by the *bothroi* found in Helladic settlements. In Early Helladic I, there were thirteen *bothroi*, but not a fragment of a pithos. In Early Helladic II, House B contained a number of pithoi in its two rooms but not one *bothros*. And no *bothroi* were found which could be associated with this level of House B or with any later period. The inevitable conclusion is that in the First Early Helladic Period the *bothroi* served as storage bins or receptacles, whereas in Early Helladic II the pithos or clay storage vessel supplanted the *bothros* in its utilitarian aspect.

UNIVERSITY OF CINCINNATI EXCAVATIONS AT TROY, 1937: CARL W. BLEGEN, University of Cincinnati.

This paper appeared in *A.J.A.* xli, 1937, pp. 553-597.

NEW MATERIAL FROM TROY VIIb: JOHN L. CASKEY, The University of Cincinnati.

During the campaign of 1937 the University of Cincinnati Excavations at Troy revealed an important stratified deposit of the time of Settlement VIIb in Square E 8. Remains of two complexes of house walls were preserved. In the deeper layer rough orthostate blocks had been freely used in the lower courses of the house-walls. The same style of construction was used in Troy IV and Troy V, and therefore is not necessarily to be attributed to foreign influence. Orthostates continue to be used in Troy VIII.

The whole pots from the strata of VIIb are of two classes: handmade *Buckelkeramik*, locally manufactured, though originally non-Trojan; and vessels of gray ware, entirely in the local tradition, with shapes and fabric little modified from those of VI and VIIa. Forms of the *Buckelvasen* are also copied in gray ware, and a further blending is to take place in the succeeding period. The miscellaneous finds include objects of terracotta, stone, bone, ivory, gold, and glass paste and an interesting, though crude and exceedingly ugly, female figurine, found in the latest VIIb layers (*A.J.A.* xli, 4).

THE POTTERY OF TROY VIII: CEDRIC G. BOULTER, University of Cincinnati.

Several closed deposits of pottery belonging to Troy VIII were found in 1937, associated with the apsidal altar in the Hellenic sanctuary. The bulk of the pottery is monochrome gray ware ("Lesbian bucchero"), with the customary decoration of bands of incised lines, both wavy and horizontal. Several new shapes appeared. The imported wares consist of Corinthian and East Greek, the latter chiefly Rhodian. They belong to a limited period, the late seventh and early sixth centuries, and date the deposits. A comparatively large amount of the characteristic painted geometric ware (cf. *Troja and Ilion*, pp. 304 ff., also *B.S.A.* xxxii, 1931-1932, Pl. 23, Nos. 6, 7, 8, 13, 16, 21 and 22) was also recovered, but it does not appear in the sanctuary deposits, and is doubtless earlier.

RECENT DISCOVERIES IN ITHACA BY MEMBERS OF THE BRITISH SCHOOL OF
ARCHAEOLOGY AT ATHENS: J. L. MYRES, New College, Oxford.

In antiquity, and until about 1900, the traditional identification of the island now called Thiaki with the Ithaca of the *Odyssey*, was unquestioned, though topographical difficulties were generally admitted. Dörpfeld explained his own failure to find early remains on Thiaki by the hypothesis of a general southward shift of place-names in early Hellenic times. But his identification of Middle Bronze age sites in Leukas with the home of Odysseus is chronologically confused.

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Recently, with funds provided by Lord Rennell of Rodd, three fresh contributions have been made to the re-identification of Thiaki with Homeric Ithaca: (1) Mr. Heurtley found at Pelikata on a ridge overlooking the three northern harbors, Frikes, Aphales and Polis, a Middle Bronze age site which lasted until Mycenaean times; and below it, towards Polis Bay, Miss Benton (Girton College, Cambridge) has recently found other traces of Mycenaean occupation. There was, therefore, a settlement in Ithaca, in the traditional "Polis" neighborhood, in the period to which the "Age of Heroes" and the "Trojan War" are commonly assigned.

(2) On the shore of Polis Bay, Miss Benton has excavated a cave-sanctuary, now partly submerged, which was frequented by votaries from Mycenaean to late Classical times, and is associated with Homeric tradition by a Hellenistic figurine inscribed "a prayer for Odysseus" (εὐχὴν Ὀδυσσεῖ). Votive pottery of Ithacan fabrics shows that the cave was frequented by the inhabitants of the Hellenic site at Aetòs; and Corinthian and other foreign offerings testify to the wide fame of the sanctuary. Specially notable is a series of bronze tripods in geometric style, like those from Delphi, Olympia, and Praesos in Crete, and furnished with wheels like those of Hephaistos in *Iliad* xviii.

(3) On the summit of the Hellenic settlement on Mt. Aetòs, Miss Lorimer (Fellow of Somerville College, Oxford) has found funerary cairns with early geometric pottery, the burial places of the earliest Hellenic settlers, immediately following the desertion of the Mycenaean site above Polis Bay. Close to these is a sanctuary, the refuse-trench of which contains votive pottery from geometric to black-figured, including Corinthian, Ionian, and other foreign styles, and a remarkably graceful school of local decoration, examples of which were also dedicated in the cave-sanctuary at Polis Bay.

The proof is thus complete, that there was a settlement in Mycenaean times overlooking Polis Bay; that there was continuity of tradition and worship at the Polis Bay cave-sanctuary from Mycenaean to late Classical times; and that this cave was frequented by the people of Aetòs, who had frequent intercourse with Ionia as well as with other parts of the Greek world. There is, therefore, now no historical or archaeological ground for questioning the tradition in the "Herodotean Life of Homer," that the poet traveled from Ionia to Ithaca, remained there long enough to learn the story of Odysseus, and did not lose his sight until after his return to Colophon.

The excavations mentioned are being published in the *Annual of the British School of Archaeology at Athens*.

THE RACIAL CONTINUITY OF PREHISTORIC THÈSSALY: HAZEL D. HANSEN, Stanford University.

A study of Thessalian pottery reveals certain features which persist throughout the prehistoric era. They are decorative motives which include, for the early part of the Neolithic Age, bands of parallel lines forming a zigzag, the broken zigzag line, the stepped band whether solid or compound, and cross-hatching. These motives are not limited to the Thessalian area, but are characteristic of the pottery there. It is to be noted that the common decorative schemes of the pottery of adjoining regions, especially that of Central Greece, are rarely found in the Thessalian wares, which developed as a specialized off-shoot of a larger cultural area. If we follow the development of Thessalian pottery through the Neolithic, Bronze and Iron Ages we see these motives persisting, sometimes predominating, again falling into the background, only to reassert themselves later. They represent that part of the pre-Mycenaean population of Greece which survived all the changes and movements of peoples and constitute an element of racial continuity which cannot be overlooked in any consideration of prehistoric Greece.

THE HALL OF THE ATHENIAN KINGS: LEICESTER B. HOLLAND, Library of Congress, Washington, D. C.

There is no evidence that a temple ever succeeded a Mycenaean megaron in direct continuity. Such a succession is logically improbable, the functional successor to a royal megaron being a prytaneum. From the time of Theseus to that of Solon, there was a prytaneum, presumably enclosing the civic hearth, upon the Acropolis, and from the fact that there is no evidence of a civic hearth elsewhere until the late fifth century, it is probable that the prytaneum and hearth continued on the Acropolis until the Persian destruction. By its plan and from the position of the Mycenaean column-bases, the eastern half of the large Peisistratid building south of the Erechtheum seems a direct and conscious successor

to the megaron of the Athenian kings. It is, therefore, more probable that it was the Prytaneum of Athens than the Temple of Athena, and while the name Hekatompedon may very well apply to it, the *archaios naos* must be sought elsewhere.

ARCHAIC BOEOTIAN TERRACOTTAS: FREDERICK R. GRACE, Harvard University.

Almost no stratigraphic evidence is available for dating Boeotian terracotta figurines before the middle of the sixth century. By comparisons with vases, however, certain fixed points of chronology may be ascertained. A group of bell-shaped figurines may be dated near 700, by a comparison of their decoration with that on late geometric vases. The lack of recognizably Boeotian figurines during the last half of the seventh century and the very beginning of the sixth probably reflects the influx of Corinthian objects which also ended the local production of fibulae. Boeotian terracottas reappear in the so-called "pappades" in the second quarter of the sixth century. Their modelling agrees with the style of Boeotian marble sculpture in the second quarter of the sixth century. The figurines of the last half of the sixth century illustrate a type in a foreign, probably island style, reflected in the contemporary kouroi from Mt. Ptoos.

THE PYRAMIDS OF ARGOLIS: LOUIS E. LORD, Oberlin College.

Three structures in Argolis were excavated in 1937. Two of these were pyramidal structures, both mentioned by Pausanias, who thought them tombs: a pyramid near Cephalaria and the pyramid near Ligourio. These, together with the "block-house," excavated near the ancient Nemea, apparently date from the fourth century. They are small guardhouses intended to control the countryside. The pyramids were never built to an apex. At one point in the pyramid at Cephalaria the wall rises to its original height. The walls were not continued above that level, even in sun-dried brick. Near each structure a millstone was found, indicating a permanent occupation by the garrison. There are three other structures of the same size in Argolis which were not excavated. Altogether there are thirteen fortresses or redoubts in the immediate neighborhood of Argos.

This paper will be published in the *A.J.A.*

SUMMARY OF THE AGORA CAMPAIGN OF 1937: T. LESLIE SHEAR, Princeton University.

For this paper see *A.J.A.* xli, 1937, pp. 177 ff. and pp. 1 ff. of this issue.

THE METAL WORKS OF ATHENS AND THE HEPHAISTEION: HOMER A. THOMPSON, University of Toronto.

The Agora Excavations have brought to light remains of ancient metal working establishments on the slopes of Kolonos Agoraios on all sides of the "Theseion." These remains are so extensive in number and in range of time as to suggest that they represent the metal working district of Athens. Consequently they furnish strong new evidence for the identification of the "Theseion" as the Temple of Hephaistos. Quantities of iron slag have been found, indicating that at least the final operations in smelting were commonly carried out in the city. Among the shops so far identified are one for the casting of bronze vessels (of late Roman times) and several for the making of bronze statues (of the sixth and fifth centuries B.C.). In a casting pit to the south of the Temple of Apollo Patroos was found much of the mould used in casting a bronze figure of about two-thirds life-size, to be dated in the mid-sixth century: probably one of the earliest statues to be cast in Greece. Another casting pit to the southwest of the Hephaisteion and within the precinct has yielded fragmentary moulds apparently from two colossal bronze statues, shown by their style and by the accompanying pottery to be of the late fifth century B.C. It has been suggested that these are the moulds used by Alkamenes in casting the Hephaistos and Athena, the cult statues for the temple. Two blocks of Eleusinian limestone recently removed from an early Christian wall in the pronaos of the temple may well have come from the base that supported those statues.

NEW DISCOVERIES ON THE NORTH SLOPE OF THE ACROPOLIS: OSCAR BRONEER, American School of Classical Studies at Athens.

This paper is published on pp. 161 ff. of this issue of the *JOURNAL*.

CULT TABLES: STERLING DOW, Harvard University.

THE SILVER COINAGE OF THE CHALCIDIC MINT AT OLYNTHUS: PAUL CLEMENT, The Johns Hopkins University.

The recorded tetradrachms of the Chalcidic mint number 305, the tetrobols 304. The tetradrachms attest 85 anvil-dies and 116 punch-dies used in 140 different combinations; the tetrobols attest 75 anvil-dies and 76 punch-dies used in 112 different combinations. The combinations of both denominations can be arranged in 24 groups by the combined evidence of die-couplings and stylistic similarity of dies; the sequence of the groups can be determined on the combined evidence of style, die-couplings, and attrition of hoard-coins. In the last 11 groups each punch-die bears a magistrate's signature. The unit-denomination of the first 4 groups is the tetrobol, of the remaining 20 the tetradrachm.

Philip's destruction of the Chalcidic state (348 B.C.) gives the *terminus ante quem* of the coinage. *S.E.G.* V, 22, recording the *Olynthians'* payment of tribute to Athens in March, 432, gives the *terminus ante quem non* both for the *Chalcidic* state and the *Chalcidic* coinage, and the common degrees of attrition shown by hoard-coins of Perdiccas II (died ca. 413) and hoard-coins of the first 7 Chalcidic groups (which contain ca. 35 per cent of the extant combinations of the unit-denominations) indicate that the *terminus post quem* of the Chalcidic coinage coincides or practically coincides with the *terminus ante quem non*. The fact that the number of tetradrachms known in 1928 has since been increased by about 53 per cent without adding a single new name to the list of magistrates seems to indicate that the list is complete. If this be true, there are further data at hand which make it possible to establish the *normal* period of tenure for a magistrate as three years and to determine the *approximate* number of years occupied by each of the 13 groups of the pre-magisterial period.

This paper epitomizes a part of SECTION I of *Excavations at Olynthus, IX, The Chalcidic Mint, and The Excavation Coins, 1928-1934*, now in press.

GREEK VASES IN THE COLLECTION OF WASHINGTON UNIVERSITY: GEORGE E. MYLONAS, Washington University.

The vases in the collection of Washington University were brought together for the Louisiana Purchase Exposition held in St. Louis in 1904. The Corinthian style is represented by two vases of unusual quality, a pyxis of the red-ground variety, of the later Orientalizing type, dating from the second quarter of the sixth century, and a beaked oenochoë, a very unusual shape for Corinthian ware, and one of the earlier historic examples of the shape. It also belongs to the red-ground later Orientalizing variety and to the second quarter of the sixth century. The black-figured style is represented by a number of vases, the more interesting of which are: (1) An amphora of the IIa type, with a figured composition representing Herakles' exploit of Cerberus, and Theseus' struggle against the Minotaur. It bears the inscription *TIMOΘΕΟΣ KALΟΣ* and it belongs to the third quarter of the sixth century. (2) A lekythos with the "athlos" of the Nemean Lion, from the last quarter of the sixth century. (3) A kylix, type I, with a representation of a duel of two heroes on the outer surface, and with a chimaera in the tondo. (4) An example of the "Little-Master" cups with cocks and palmettes. (5) A plastic vase in excellent preservation, representing a negress. Of the many red-figured vases two are outstanding: (1) A Nolan amphora attributed to the Providence Painter, and (2) an oenochoë of type V, from about 475 B.C. The latter bears a single maenad on its figured frieze and presents so many puzzling points that it is impossible to attribute it to a known painter of the time.

OLTOS: FRANKLIN P. JOHNSON, University of Chicago.

Throughout Oltos' career he decorated with simple compositions kylikes of moderate size; larger kylikes and vases of other forms belong chiefly to his later period. Specific resemblances between certain of his vases and others by Euphranor suggest that the careers of the two men overlapped more than has generally been supposed; that Oltos continued to paint nearly till 500; and there is little reason to push back the earliest pictures before 520.

CERAMIC EVIDENCE FOR THE INTRODUCTION OF THE GREEK ALPHABET: RODNEY YOUNG, Agora Excavations, Athens.

The earliest inscriptions that have been found up to date are incised or painted on vases. A dating of these vases should, then, give a *terminus ante quem* for the introduction of the alphabet into Greece. Inscriptions found on Mt. Hymettos, in Corinth, and at the Dipylon have been used as evidence for

the early introduction of the alphabet. Most of the graffiti from Mt. Hymettos are incised on one-handled cups of subgeometric Attic fabric. Cups of the same type have been found in three Agora well deposits, all of which contained also middle and late Protocorinthian skyphoi. Graves in the Phaleron cemetery contained the same combination of Attic cups and middle Protocorinthian skyphoi. The Attic cups should, therefore, be dated in the first three quarters of the seventh century, and not in the eighth. Other inscribed sherds from Mt. Hymettos are decorated in the subgeometric or orientalizing style characteristic of the early seventh century, comparable with the decoration of the hydria from Analatos. None of the sherds from Mt. Hymettos should be dated before 700. The inscribed sherds from Corinth should be dated after 650; one of them, a skyphos fragment, was decorated with a triple band of added red or white below the rim, a motif characteristic of late Protocorinthian and Transitional skyphoi, and rarely found on middle Protocorinthian vases. The well known oinochoe from the Dipylon, which bears a graffito designating it as the prize in a dancing contest, should be dated about 700 or slightly later. In shape, the oinochoe is of a type found in the very latest geometric graves (as Grave III at the Dipylon); its neck is decorated with a grazing deer of a type used on subgeometric and early Proto-Attic vases. A number of dipinti and graffiti found in the Agora come from deposits which contained middle or late Protocorinthian vases, and are therefore to be dated in the seventh century. No inscriptions have been found in the Agora or elsewhere that can be dated earlier than 700. Of the inscriptions found, the majority date from near the middle of the seventh century. The great rarity of inscriptions of the early seventh century, and the comparative rarity of inscriptions of the mid-seventh century suggest that the alphabet was unknown in Greece before the last quarter of the eighth century.

ARCHAIC INSCRIPTIONS FROM PERACHORA: H. T. WADE-GERY, The Institute for Advanced Study, Princeton.

ORIGIN AND DIFFUSION OF THE GREEK ALPHABET: RHYS CARPENTER, Bryn Mawr College.

Alphabetic writing is not easily transmitted, particularly where a change of language is involved. Semitic can be (and was) written in purely consonantal notation: Greek so transcribed is illegible and unintelligible. Hence there could be no Semitic-Greek transmission of the alphabet through merely casual contact. Only if vowel-notation was grafted on Semitic consonantal-notation could Greek be recorded. In Cyprus alone was there a system of notation involving vowels. Hence only someone familiar with the Cypriote syllabary as well as the Semitic consonantal script could have had the idea of combining the two methods. We must look for the origin of the Greek alphabet in a bilingual community in Cyprus. Internal evidence suggests that the "inventor" was not Ionic, nor yet pure Doric, nor Aeolic. A Rhodian is almost the only possible candidate. The peculiar occurrence of an epichoric family using a Greek alphabet without the Semitic letter B confirms the Cypriote origin and gives us a clue to the probable date of invention. This epichoric group indicates an alphabetic diffusion from Cyprus *via* Crete to Thera and Corinth, the familiar route for the diffusion of oriental motives at the end of the geometric period. There is no trace of cultural contact earlier.

THE LETTERS OF CADMUS: JOHN DAY, Barnard College.

The legend of Cadmus must be subjected to close scrutiny in order to ascertain any historical element or elements that it may contain. The discoveries made during the excavation of the Cadmeum at Thebes, the fact that the Phoenician element of the legend is not attested before the fifth century, and the probability that the Phoenician alphabet was introduced into Greece during the ninth century indicate that the only definite historical element in the legend concerning the letters of Cadmus is the fact of the Phoenician origin of the Greek alphabet.

THE HISTORY OF THE ALPHABET: B. L. ULLMAN, University of Chicago.

The alphabet was invented before 2,000 B.C. The Sinai Semitic inscriptions are alphabetic and date from 1900-1800 B.C. This alphabet was modelled on carelessly made Egyptian hieroglyphs and was based on the acrophonic principle. There are a few other similar inscriptions in Semitic lands. The Ras Shamra cuneiform alphabet of the fourteenth century was probably based on the developed Semitic

alphabet. Phoenician inscriptions of the thirteenth century show a fully developed script. The Greeks obtained their alphabet from the Phoenicians before 1000 B.C.

There are no such things as western and eastern Greek alphabets as commonly understood. The so-called western alphabet represents the earlier form, which persisted in certain regions; the eastern is a later form. The probability is that the dating of some of the archaic Greek inscriptions is too conservative. A new study of the archaeological and other evidence, so far as it still exists, should be made, to determine the date of all inscriptions assigned to the sixth century or earlier. The Carian, Lydian, Lycian, and Phrygian alphabets are derived from the early (so-called western) Greek alphabet. The Phrygian borrowing was in the eighth century. The Etruscan alphabet was borrowed from the same early Greek alphabet not later than the eighth century, possibly while the Etruscans were on the way to Italy. It need not have been borrowed from a geographically western source. The Romans took their alphabet from early Etruscan (proto-Etruscan), not directly from the Greeks of Cumae, as has been the common assumption since 1850 (Mommsen).

OBSERVATIONS IN SAMOTHRACE: KARL LEHMANN-HARTLEBEN, New York University.

The former excavations in the Kabeirion have left the appearance and development of the sanctuary incomplete and indistinct. Extensive parts have not been excavated and the earlier strata are unexplored. The result of preliminary observations made in the summer of 1937 led to the impression that the sanctuary was more important in earlier periods than has hitherto been assumed. And this impression is in harmony with the evidence from literary sources. The specific observations made were the following: (1) The Ptolemaion has largely been built with re-used material from a limestone building of the sixth or fifth century. (2) Beneath the Arsinoeion there exists an extensive "black" layer with archaic remains. (3) The "old" temple had already in the archaic period its later size; it was destroyed about 400 B.C. in the rear part by an earthquake and afterwards remodelled in marble. (4) In the corner between the old and the new temple an archaic altar or bothros, destroyed by the same earthquake, was discovered; bones of sacrificial animals, of goats and pigs, confirm belief in the chthonic character of the cult; but there is no evidence for sacrifices of rams, which have hypothetically been assumed by various scholars and led to far reaching conclusions. Among the finds there is a toe of an archaic statue. The town of Samothrace seems to have been much more important in early times than has often been assumed.

THE FIRST CAMPAIGN AT SELEUCIA PIERIA: W. A. CAMPBELL, The Institute for Advanced Study and Wellesley College.

The concession for the excavation of Antioch was extended to include the seaport, Seleucia Pieria, and the summer of 1937 was devoted to preliminary exploratory work there. The area was surveyed and put on a quadrated plan, numerous photographs were taken, and trial trenches were dug. The central passage-way of the large market-gate was cleared and a section of the street colonnade from the gate to the market-place was located. Several trial trenches in the market area itself resulted in the discovery that the buildings were preserved to a remarkable height. Three selected portions of the inner harbor-wall were cleared and two docks discovered. In a residential district above the inner harbor a complete house-plan was excavated. Preparations were made for the excavation of two temples on the acropolis. Here, too, ancient remains are very well preserved. The excavations produced some marble statuary, several Greek and Latin inscriptions, bronze objects, complete pottery and mosaic pavements.

ANTIOCH ON THE ORONTES: SEASON OF 1937: FREDERICK O. WAAGÉ, Cornell University.

Work was divided between the town proper and the suburb of Daphne. Studies in the plan of the ancient city were carried forward by testing an area which literary and topographical evidence indicated might have been its center; this was proved not to be the case, however, and evidently the Forum of Valens and the adjacent buildings are to be sought nearer the modern course of the stream Parmenius. The history of the main street in this region was amplified and the chronology of its periods more correctly defined as the result of the opening of new, and of the extension of old, test pits along the Aleppo road, and by a new study of the ceramic evidence. It now appears that between the stamped-

gravel Hellenistic streets and the basalt paving of the time of Justinian, there were three separate periods, in only the latest one of which (about the end of the second century A.D.) were there porticoes, and then probably double ones. Several of the mosaic floors in Daphne are of more than ordinary importance, among them a well preserved panel of Narcissus (probably the third century) and a most striking panel of a striding lion; the latter, of the fifth century, is Sassanian in all respects. Other mosaics were uncovered by a trench dug in an effort to clarify the relation between several mosaic rooms found during past seasons; the most noteworthy were a second Narcissus, very different from the first in its richer pictorial setting (although of about the same date) and, in the adjoining triclinium, a unique representation of the courses which constituted a Roman banquet. The villa in which these mosaics were found was partly covered by a later villa of the fifth century, which is important for its almost complete plan. Sections of two streets running at right angles to each other give the first evidence of a quadrated town-plan in Daphne, thereby fixing the corners of four city blocks and furnishing a possible starting point for systematic excavation there in the future.

EXCAVATIONS AT GÖZLÜ KULE, TARSUS, 1937: HETTY GOLDMAN, The Institute for Advanced Study.

This paper is published on pp. 30-54 in this issue of the JOURNAL.

THE EXCAVATIONS AT CHANHU-DARO: W. NORMAN BROWN, University of Pennsylvania.

Chanhudaro is the third prehistoric site of the third millennium in the Indus valley to be intensively explored. The American School of Indic and Iranian Studies and the Boston Museum of Fine Arts conducted a joint excavation there during the season of 1935-36, with Dr. Ernest Mackay as field director. Of the three mounds that constitute the site, the largest was cleared to a depth of 17 feet below the summit and a trial pit was dug to a depth of 25 feet below plain level, with virgin soil not yet reached. The second largest mound was cleared for the uppermost levels only. The main results of the first season's work consist, first, of discoveries that the Harappa (previously so-called "Indus") culture was followed by two successive occupations, both presumably before 2000 B.C., of which the earlier is the Jhukar culture and the later the Jhangar. These are characterized by pottery, which is quite unlike any known elsewhere in India, and in the case of the Jhukar culture also by the type of seals and seal-amulets. Secondly, the Harappa period strata yielded rich finds, with new types of pottery and seal designs, metal objects, and beads. The bead industry of this culture has been described by Dr. Mackay in an article (*JAOS*, Vol. 37, 1937, pp. 1 ff.) based upon the finds at Chanhudaro. The site is now about one-third explored.

THE CAMPAIGN OF 1936-37 AT DURA-EUROPOS: FRANK E. BROWN, Yale University.

The season of 1936-37 at Dura, since it was the last, was largely devoted to a program of final cleaning and study of buildings excavated in previous seasons. New work was undertaken only in the region of the market-place, where a block of late shops and houses was uncovered to complete the excavation of the west half of the area of the Hellenistic agora. The final investigation of the fortifications showed conclusively that the circuit walls and towers in stone, including the Citadel, are of Hellenistic date. Similar work in the palaces of the Citadel and the Redoubt-Acropolis revealed in each case an early and a late Hellenistic period associated respectively with the third and second centuries B.C. The cleaning of the Temple of Atargatis of 31-32 A.D. brought to light three new inscriptions, while the excavation of the lower levels revealed an earlier temple of the mid-first century B.C. In the Temple of Bel (Palmyrene Gods) a gradual development in three main periods over some two centuries from ca. 50 A.D. was traced. Renewed investigation of the Christian building with a view to determining more precisely the date of the house which was converted into meeting place and baptistery brought definite evidence that it was built in the early third century A.D. on the site of a previous dwelling. Finally, work in the necropolis yielded a solution of the problem of the superstructure of the tower-tombs. Perhaps the most important result of the aggregate of these investigations is the light they throw on the Hellenistic period at Dura, and its relation to succeeding periods. This in turn gives a better conception of the city foundations of Seleucus I and Antiochus III and IV and of their rôle in the Hellenization of the East.

TERRA SIGILLATA FROM MINTURNAE: HOWARD COMFORT.

An important group of terra sigillata with signatures was found at Minturnae in Well No. 1, dated by Dr. Jotham Johnson as late Augustan or early Tiberian, viz.: *Cn. Atei*, *Cn. At(ei) A(rretini?)*, *Hermeisci*, *PHO* twice, *V.L.C.*, *C. Me() R.*, *L.R.C.*, *Sereni*, and three illegible. Only *Cn. Atei* is in a rectangle; the remainder (except one illegible) are *in planta pedis* or convincing approximations of it. Only *C. Me() R.* and *L.R.C.* are necessarily of Tuscan (Arretine?) origin; the remainder are non-Arretine products of Pozzuoli and elsewhere. Of this group only *Cn. Atei* appears on the lower Rhine or at Vindonissa. The shapes of two bowls (*Sereni* and one illegible) are paralleled at Ornavasso (Bianchetti, *Atti della Soc. di Arch. e Belle Arti per la Prov. di Torino* VI, 1895, Tav. XXI 25 and XXIII 10 respectively), and another (illegible) is paralleled at Ventimiglia (Barocelli, *Mon. Ant.* XXIX. 1923, Fig. 39c, d), but not at Haltern. The shapes of the plates are also post-Augustan.

TECHNOLOGICAL METHODS IN THE STUDY OF POTTERY FROM GREECE AND ITALY:
DONALD HORTON, University of Pennsylvania Museum.

In response to the need of the archaeologist for more exact and detailed information on the composition and technical features of his pottery, an analytical procedure sufficiently sensitive and many-sided to meet the complexity of the material is taking form. The basic method is the use of the petrograph microscope in determining the character and quantity of substances present in a ceramic fabric. Other laboratory methods derived from Ceramics and Chemistry are employed as occasion warrants. The achievements of technological analysis have thus far been made chiefly in the American and European fields. A brief résumé of such preliminary work as has been done on Minyan, Cypriote, Buccero and Impasto, *Terra Sigillata*, and Greek black-figured wares indicates that technical studies of pottery from the classical area are feasible and potentially valuable.

THEOPHRASTUS: THE TREATISE ON STONES IN THE LIGHT OF ARCHAEOLOGICAL
DISCOVERIES: SHIRLEY H. WEBER and EARLE R. CALEY, Princeton University.

Few classical works have been so neglected by scholars as the treatise on stones ascribed to Theophrastus of Eresos. No translation into any modern language has appeared since the eighteenth century; no satisfactory commentary has ever been published. As the only work which informs us in a direct way of the mineral substances known and used in ancient Greece this treatise is of considerable value and merits more attention than has been given it in the past.

The theory that this treatise was once part of a more extensive work on Greek mineralogy is not supported by the archaeological evidence, for there is a close correlation between the kinds of mineral substances found in excavations and those mentioned in the treatise. Often one source of information supplements the other. A major difficulty in the way of a full understanding of the treatise is the certain identification of the various mineral substances named by Theophrastus. Etymology alone is an unreliable guide, but, by correlating archaeological discoveries with the geological facts and with the descriptions given by Theophrastus, nearly all the technical names can be correctly interpreted.

In the preparation of a text and annotated English translation of the treatise, a task in which the authors are now engaged, an attempt is being made to use where possible pertinent archaeological evidence as an aid in the interpretation of the contents of the work.

BRYAXIS AND THE NIOBIDS: FRIEDRICH VON LORENTZ, University of Cologne.

THE LION AT AMPHIPOLIS: OSCAR BRONEER, American School of Classical Studies, Athens.

During the Balkan and the World Wars fragments of a large monumental lion of marble were discovered by officers and soldiers of the Greek and British armies on the right bank of the Strymon. The existence of the monument was brought to the attention of Mr. Lincoln MacVeagh, the Minister of the United States to Greece, who visited the place and immediately took steps to secure the necessary funds for the restoration of the lion (see Fig. 1, *News Items from Athens*, p. 150).

A preliminary investigation of the site had already been made by members of the French Archaeological School in Athens, and in the summer of 1936 a systematic clearing of the whole site was undertaken jointly by the American School of Classical Studies in Athens and the French School. Later in the summer of the same year work on the restoration was begun by the sculptor A. Panagiotakis of the National

Museum in Athens. This work was greatly facilitated through the coöperation of the American engineers of the Monks-Ulen Company.

The lion, which is now completely restored, resembles the well-known Lion at Chaeronea in pose and dimensions, but is vastly superior as a work of art. If, as seems likely, the monument was erected to commemorate the battle of Amphipolis in 422 B.C., it must have been made some fifty years after the battle was fought, since the style of the sculpture and certain technical details seem to preclude an earlier date. The lion faced the city of Amphipolis and the ancient bridge across the Strymon, the marble fragments of which have come to light in the drainage work of the river. A new bridge has now been constructed by the Greek Government at the site of the ancient bridge, and a new road from Salonika is under construction which at this point follows very nearly the Via Egnatia. When this work is completed the lion of Amphipolis, hitherto very inaccessible, will again form a prominent landmark on the route toward Thrace and northern Macedonia.

A CACHE OF BRONZE PORTRAITS OF THE JULIO-CLAUDIANS: DOROTHY KENT HILL,
Walters Art Gallery.

Two heads, now in the Walters Art Gallery, together with others found during excavations for the English Church in Rome in 1880, now in the Conservatori, represent five male members of the Julio-Claudian family. They were made for the decoration of a private house, one at a time during the principate of the Julio-Claudians, and put out of the way under the house soon after the fall of Nero.

ROMAN FEMALE PORTRAITS OF THE LATE SECOND CENTURY A.D.: GEORGE M. A.
HANFMANN, Society of Fellows, Harvard University.

A female portrait of the late second century A.D., now in the possession of an art dealer, is described and is compared with other portraits of similar date. This portrait exhibits firm sculptural modelling and refined linear treatment of details. Its style is quite different from the dynamic and pictorial chiaroscuro style then prevailing in male portraiture and in reliefs. A somewhat earlier head of a girl in the Museo Nazionale, Rome, is tentatively assigned to the same master.

THE PHLYAX TYPES AND ROMAN COMEDY: A. M. G. LITTLE, Harvard University.

The Phlyax vases constitute a valuable source-book for the native antecedents of Roman comedy. They cover the interval of the fourth century between the Syracusan drama of Epicharmus and Sophron, and the century of Plautus' birth, when the types are continued on the Gnathia vases from Tarentum. They fall into three main divisions: (1) a sacral group, associating the actors with Dionysus, (2) a mythological group, (3) a group with scenes from comedies of everyday life. The types of the actors may be reduced to a small group of male and female characters, some of which are recognizable again in those of the Atellanae and in the stock characters which Plautus selects as butts in his popular plays. They are an off-shoot of Dorian comedy in the West, and contribute a distinct native element to the ancestry of The Comediae Palliatae upon the Roman stage.

THE TEMPLES OF JUPITER ULTOR AND SOL INVICTUS: DONALD F. BROWN, New York City.

Certain coins of Alexander Severus bearing the legend IOVI.ULTORI are identified as showing the present Vigna Barberini upon the Palatine Hill in Rome. A careful comparison of details upon the coin-type and the actual ruins leads to this conclusion. The temple of Jupiter Ultor was erected by Alexander Severus upon the same site as the former temple of Sol Invictus, which had been built by his predecessor, Elagabalus. Coins of this latter emperor, upon which is the representation of a temple, show the same building in all major details as the Severan coins. This conclusion proves the foregoing hypothesis that the two temples occupied the same ground. Since the latter is known definitely to have been upon the Palatine, the former must also have been there. The site of the temple was formerly the Adonea gardens. The text of the *Historiae Augustorum* which refers to the location of the temple of Sol Invictus is corrupt and capable of being emended to read *Adonea hortus* in place of *aedes Orcus*. With this conclusion *in toto* a difficult problem of the topography of the Palatine is solved, primarily through a new and more critical usage of coins than has hitherto been attempted.

1938
January–March

ARCHAEOLOGICAL NEWS AND DISCUSSIONS¹

NOTES ON RECENT ARCHAEOLOGICAL EXCAVATIONS SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN CURRENT PUBLICATIONS

DAVID M. ROBINSON, *Editor*
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NECROLOGY

Hubert Philippart died in 1937 at the age of 42. He was Professor of Art and Archaeology at the University of Brussels, where he created in 1930 *La Fondation archéologique*. Philippart specialized in the study of Greek vase-painting. Among his many articles and monographs on this subject are: "Quelques ouvrages récents sur la céramique grecque," *Revue de l'Université de Bruxelles*, 1924–25, pp. 288–293; "Collections d'antiquités classiques aux États-Unis," Supplément de la *Rev. Univ. Bruxelles*, 1927–28, 56 pp.; "Deux coupes attiques à fond blanc," *Mon. Piot*, 1926, pp. 99–136; "L'Athènes des vases peints," *L'Acropole*, 1930, pp. 145–165; *Collections de céramique grecque en Italie*, Bruxelles, 1932–1933, 2 vols.; "Céramique grecque à Rouen," *L'Antiquité classique*, 1932, pp. 243–347; "Vases attiques inédits du Castello Sforzesco," *R. Arch.*, 1933, pp. 154–162; "Collections de céramique grecque en Angleterre," *L'Antiquité classique*, 1935, pp. 205–226; "Les coupes attiques à fond blanc," *ibid.* 1936.

¹ The Department of Archaeological News and Discussions and of Bibliography of Archaeological Books is conducted by Professor DAVID M. ROBINSON, Editor-in-charge, assisted by Professor CARROLL N. BROWN, Miss MARY H. BUCKINGHAM, Professor ROBERT E. DENGLER, VLADIMIR J. FEWKES, Dr. HENRY FIELD, Professor JOHN W. FLIGHT, Professor HAROLD N. FOWLER, Dr. SARAH E. FREEMAN, Professor HENRY S. GEHMAN, BATTISCOMBE GUNN, Professor FRANKLIN P. JOHNSON, Professor ROLAND G. KENT, Professor F. B. KRAUSS, Dr. STEPHEN B. LUCE, Professor CLARENCE A. MANNING, Professor GEORGE E. MYLONAS, EUGENE PROSTOV, Professor ROBERT S. ROGERS, Professor JOHN SHAPLEY, Professor FRANCIS J. TSCHAN, Professor SHIRLEY F. WEBER, LOUIS C. WEST, Professor FRED V. WINNETT, and the Editors.

For an explanation of the abbreviations see Vol. xxxiv, p. 124, Vol. xxix, pp. 115–116.

John Leslie Starkey was killed on January 10, 1938, by Arab bandits near Hebron in Southern Palestine. After the World War Sir Flinders Petrie took Starkey to assist him in his excavations in Egypt. Starkey had no training in classics or orientology but his practical and mechanical abilities made him invaluable to the expedition. After many years of experience with the British School of Archaeology in Egypt and with the Michigan Expedition in Egypt, Starkey went to Palestine with Professor Petrie around 1926.

In 1932–33 Starkey conducted his first campaign at Tell Duweir, the biblical Lachish. His reports for the first five campaigns have appeared in the *Quarterly Statement of the Palestine Exploration Fund* lxv, pp. 190–199; lxvi, pp. 164–175; lxvii, pp. 198–207; lxviii, pp. 178–189; lxix, pp. 228–241. Reports have also appeared in *The Illustrated London News*. The Tell Duweir excavations have enjoyed from the very start the deserved reputation of being the best run in Palestine. His field technique was superb and he was rewarded with important finds, including the sensational Hebrew ostraca of the sixth century B.C.

Starkey knew how to exhibit his discoveries effectively. His annual summer exhibition and lectures at the Wellcome Institute in London were very popular. He succeeded in interesting the public and thereby built up a following. He was extremely generous with his material. Every scholar, famous or obscure, who wanted to examine Starkey's finds, was given free access to them.

By his untimely death, at the age of forty-five, archaeology has lost a first class excavator. He will not be easily replaced.

MESOPOTAMIA

The Scorpion in Mesopotamian Art and Religion.
—Mrs. E. DOUGLAS VAN BUREN shows that in

early times the scorpion in Mesopotamia was not considered an objectionable, stinging creature but instead was regarded as the symbol of fertility and prosperity. In astrological texts and in a *kudurru* from Susa the scorpion is identified with the goddess Išhara. Mrs. Van Buren traces references in the literature and artistic representations of the scorpion from the earliest times to the Parthian period. (*Archiv für Orientforschung* xii, 1937, pp. 1-28.)

The Middle Assyrian Laws.—In the *Archiv für Orientforschung* xii, 1937, pp. 46-54, Dr. ERNST F. WEIDNER publishes five hitherto unpublished fragments of the Middle Assyrian Laws. Weidner demonstrates conclusively (on the evidence of provenance and eponym datings) that the laws were written in the reign of Tiglatpileser I (1115-1077 B.C.).

Luristan Bronzes.—Two late Assyrian Luristan cups of bronze are published by WALTER BAUMGARTNER in *Archiv für Orientforschung* xii, 1937, pp. 57-59. One may possibly be dated in 669 B.C., the eponymate year of Bēl-mudammiq. One cup is decorated with a winged steed; the other, with a seated, bearded man, about to drink from a cup and to eat from a table covered with fruit. Unfortunately, only one picture of each piece is given. Accordingly, only half of each scene is visible.

Survey of Art.—*Archaeologische Mitteilungen aus Iran* viii, 3 and ix, 1, are devoted to "Die Kunst des zweiten Jahrtausends in Vorderasien" by Professor ERNST HERZFELD.

In spite of the great progress and new discoveries in the archaeology of the Near East the history of the second millennium is full of serious gaps. Scholars still use the term "Assyrian" to date seal cylinders over a period lasting eighteen hundred years! Though such a gross chronological designation is indeed surprising, it actually appears in standard publications of recent date. Herzfeld's many stylistic observations are of definite interest. However, what is of special value to the student of glyptic art is that Herzfeld has assembled all of the seals that can be dated with more or less precision. Thanks to him there is now an easily accessible basis for a more exact chronology of Babylonian and Assyrian art in the second and early first millennium B.C.

PALESTINE AND SYRIA

The Alphabet.—In the *Palestine Exploration Quarterly*, July, 1937, S. YEIVIN discusses the

Palestino-Sinaitic Inscriptions. The inscription on the bowl found at Lachish (which he calls Lachish II) he maintains should be read *bass* liššith y* magger šh* He translates: "May NN overthrow for the third time (his rival XX—or something similar)." We now have seen seven inscriptions in the pre- or proto-Israelite script of the country: the Tell-el-Hesi ostracon, the Gezer ostracon, the Beth-Shemesh ostracon, Lachish I and II, an unpublished inscription from Shechem, and Lachish III (published in the *Quarterly Statement*, October 1936). That this script was used extensively for various purposes is inferred from these inscriptions. Thus those of Shechem, Gezer, and Lachish I are dedicatory; that of Lachish II is funerary; those of Tell-el-Hesi and Beth-Shemesh refer to daily use.

Furthermore it has been possible to give these inscriptions approximate dates and to arrange a chronological sequence as follows: the Shechem fragment (stone) ca. 1650 B.C.; the Gezer ostracon (base of a tall censer) ca. 1600 B.C.; the Tell-el-Hesi ostracon (bowl) ca. 1350 B.C.; Lachish I (ewer) ca. 1275 B.C.; Lachish III (censer cover) dated between Lachish I and II; Lachish II (bowl) ca. 1225 B.C.; the Beth-Shemesh ostracon ca. 1200-1180 B.C.

J. LEVIE, S.I., in *Nouvelle Revue Théologique*, September-October, 1937, gives an account of the expeditions to Serabit el-Khadem, the discovery of the proto-Sinaitic inscriptions, and the history of their interpretation. He includes a great deal of bibliography and concludes with the view of Albright and Butin that the above listed finds in Palestine represent the link between the proto-Sinaitic and the Phoenician letters or alphabet.

Writing.—Some important considerations growing out of studies in the history of writing are treated by JOHANNES FRIEDRICH in *Z.D.M.G.* xci, 1937, pp. 319-342. His concern is to give attention, not merely to comparison of external forms of ductus, as he claims most studies have done in the past, but to an evaluation of the inner nature (the spirit of the content) of given systems of writing. Applying this principle to several systems, among them the Meroitic script and the Ras Shamra cuneiform alphabet, Friedrich points out certain significant features which may furnish clues to historical relations of scripts and to probable external influences determining their form. Among "modern parallels to ancient inventions of writing" he introduces several new illustrations unnoticed in the standard works. A telling point

is made in the discussion of the Bamum inscription which within twenty years (1900-1918) developed from an unphonetic picture-writing to an alphabetic system; this rapid development in modern times may suggest that in ancient times also the process of evolution may in some cases have been more rapid than we have supposed. There is need for great caution in applying this postulate. There is also room for doubt concerning the implication that ancient systems of writing may have been the result of such more or less arbitrary creation of symbols, as was the case in some of the more recent examples cited. The article raises more problems than it settles, but it will doubtless stimulate further research and interpretation in this vast and baffling field.

Nuzi Tablets.—Utilizing archaeological evidence from the Nuzi documents, MILLAR BURROWS (*J.A.O.S.*, September, 1937, pp. 259-276) discusses a problem involving the interpretation of an Old Testament passage (Gen. 31: 14-16) dealing with marriage customs in the patriarchal period. He points out a parallel in the *errēbu* marriage of ancient Babylonia, in which, when there was no male descendant, continuation of the family was had through a daughter, for whom a husband was taken into the father's family. The case of the Arab *mot'a* marriage is similar and may have a very early origin. Burrow's interpretation of the passage in Genesis seems reasonable and conclusive as far as it goes, and furnishes an interesting illustration of the growing service of archaeological discovery and research in the field of exegetical study and in shedding light upon problems of cultural reconstruction.

A further instance of light from cuneiform sources contributing to problems of interpretation may be seen in N. SCHNEIDER's treatment of a reference in II Kings 23:13 concerning "Milcom, the abomination of the Ammonites" (*Biblica xviii*, 1937, pp. 337-343).

Hurrian Names.—One of a series of recently published articles by Dr. LEO OPPENHEIM on the Hurrian personal names in the Nuzi tablets (fifteenth century B.C.) is published in *Archiv für Orientforschung* xii, 1937, pp. 29-39. The Nuzi tablets were discovered by American excavators near Kirkuk. These studies bid fair to add to our meagre knowledge of Hurrian grammar and vocabulary. They also shed light on the Hurrian pantheon, for the names naturally contain many theophoric elements.

Hebrew.—The publication by JIRKU and

CERNY of Palestinian names in early Egyptian texts suggests that as early as the beginning of the second millennium B.C. a population which may be called Hebrew had a footing in the extreme south of Palestine. This agrees with the narrative of Genesis which describes the wandering and sojourn of Abraham in the south of the Negeb of Judah. Dr. Jack suggests that many of these Hebrews may have found employment in the mines of Edom and Sinai long before Jacob and his family went down into Egypt. (*Palestine Exploration Quarterly*, July, 1937.)

Khafaje.—A report on the most recent discoveries at Khafaje by Professor HENRI FRANKFORT, Director of the Iraq Expedition of the Oriental Institute, is published in *I.L.N.*, November 13, 1937, pp. 840-841. Most of the season of 1936-37 was devoted to further excavation on the site of the Moon-God's temple. The uppermost level dates in the Early Dynastic period. The five levels below this belong to the Jemdet Nasr Period. Owing to the height of the ground water-level it was impossible to dig any lower. The most interesting small finds of the Jemdet Nasr period were the cylinder seals, which were found in great quantities. Two seals were discovered which were survivals from the earlier Uruk period. They are the oldest objects yet discovered at Khafaje.

Lachish.—A report on the fifth season's excavations at Tell Duweir, ancient Lachish, by the late J. L. STARKEY, Director of the Wellcome Marston Archaeological Research Expedition to the Near East, appears in *I.L.N.*, November 27, 1937, pp. 944-946, and 968. A number of tombs, most of which had been plundered in antiquity, were cleared. Many beads, scarabs and seals were found, covering the period from late Hyksos to early Ramesside times (1600-1250 B.C.). The pottery found forms an unbroken series for the same period. Fragments of three bowls bore inscriptions in cursive hieroglyphic script. They are dated on palaeographic evidence in the last quarter of the thirteenth century B.C. This date is confirmed by other objects found in the same context, including remains of vases copied from Aegean types. These show a commercial connection with Mediterranean centers of culture. Further evidence was revealed supporting the conclusions drawn from earlier excavations that the city suffered complete destruction at the end of this period. One of the most important small finds was a bronze dagger from an intact Hyksos burial, not later than 1600 B.C. On the blade were four signs of a pictographic

script. They are the earliest datable alphabetic signs so far found in Palestine, being about 350 years earlier than the Duweir Ewer.

Reports on the excavation at Lachish were also published in the *Palestine Exploration Quarterly*, July and October, 1937. The following additional notes were taken from these articles. The residence of the Persian governor has been excavated. In the palace was found a shrine for sun-worship. The axis is due east and west, and the entrance of the inner sanctuary is open to the rising sun. On the flight of steps leading up to the sanctuary was a square limestone altar. On opposite sides was the figure of a man with upraised arms and a human hand in relief. A single right hand is a recognized attribute of the deity, when blessing or prospecting his votaries, while two hands raised are the usual oriental form of supplication. These symbols are associated almost exclusively with the sun as the god of justice. This shrine probably represents the last phase of the re-occupied city, and may be even as late as the end of the third century B.C.

A seal found in the excavations bears a very interesting inscription in Hebrew characters: "For Shefa'yahu 'Ashyahu." The script favors a date about 600 B.C. In the upper register is the figure of the winged serpent facing an "ankh" or sign of life. It is interesting that these pagan symbols are used by a man whose name is compounded with the name of YHWH. If we take the second name as that of his father, it appears that heathen sympathies persisted through two generations who appear to be followers of YHWH.

During the last excavation two scarabs were found bearing the name of the Hyksos king Pepa (Apophis). Two burnt levels of the city were unearthed. The upper one may be equated with the final Chaldaean attack, the time to which the Lachish Letters belong. The earlier or lower level may tentatively be assigned to the first threat on Judah's independence (597 B.C.). The fragments of a pottery bowl with an inscription in hieratic of the thirteenth and twelfth centuries B.C. show that the authorities at Lachish used the Egyptian calendar and the Egyptian system of numeration. The four pictographic signs on the dagger are also important. The two central pictographs form part of the Sinaitic signary; of the other two, the upper one is quite new, but the lower one occurs on early inscribed objects from Crete and the Aegean. The dagger has been dated not later than 1600 B.C., and shows by its workmanship that it was of local origin.

Mari.—The most recent report on the excavations at Mari appears in *I.L.N.*, October 30, 1937, pp. 763-765. It is by Professor ANDRE PARROT, Director of the Louvre Expedition at Abu Kemal on the Euphrates. The most important finds this season were mural paintings. Some were found *in situ*; others had collapsed and were pieced together in part from the hundreds of fragments recovered from the débris on the floor. The subjects are varied. On some of the pieces scenes of sacrifices and religious ceremonies are represented; on another, the investiture of the king; on others, realistic scenes of date-gathering and fishing. These murals, which are dated about 2000 B.C., will prove very important in a study of the origin of painting.

Ras Shamra.—Dr. SCHAEFFER reports the discovery of a jeweller's scales and weights hidden beneath the floor of his shop. The significant point is that the weights appear to be based on a talent of 3000 shekels, which was the early Hebrew standard, as opposed to the talent of 3600 shekels which was the standard in Sumerian and Babylonian currency. (*Palestine Exploration Quarterly*, July, 1937.)

Ras Shamra Texts.—The theory of Virolleaud and Dussaud that in the Legend of Keret and the Poem of the Gracious Gods we have memories of an early Phoenician settlement in the Negeb of Palestine and of its relations with Edom is subjected to a searching criticism by Père R. DE VAUX in *Rev. Bib.* xlvi, 1937, pp. 526-555. He points out that, if the Legend of Keret refers to southern Palestine, this region must have been well settled and highly developed. But that is contrary to the evidence of the Egyptian references, the Tell el-Amarna letters, and the Bible, which knows it only as a land of Bedouins. The *Udmu* of the texts cannot possibly refer to Edom, because Edom did not come into existence until after 1300 B.C. Père de Vaux suggests another topographical setting for the Keret legend. The twin cities of *Udmu* he would locate at the mounds of *ed-Dámieh*, the *Adami han-neqeb* of Josh. 19:33, about twelve kilometers west of Lake Tiberias. Four kilometers south of this point is the village of *Sarona*, corresponding to the *Sharna* of the legend. Ten kilometers northwest lies *kh.Sa'd*, marking the site of *Sa'at* of the legend. Two kilometers southwest is the village of *Kefr Sabt* with two springs, the equivalent of the fountain of *Shebt* of the legend, while the *spring of Mimlat* in the legend is *'Ain Mimla*, about twelve kilometers

to the north. This remarkable similarity between the ancient and modern topography can scarcely be accidental.

The Phoenician pantheon was substantially as follows: At the head stood *El*, the supreme god, often called *melek*, "king" (O. T. *Moloch*). Since *el* is a common noun, his proper name was probably *Dagon*. He had two sons: *Môt* and *Baal* (since *baal* is another common noun his real name was probably *Hadad*). The struggles between *Môt* and *Baal* represent the alternation of the seasons.

The supreme goddess is called *Elat*, or *Asherat*, the latter being her real name. Her two daughters are *Anat*, the queen of the sky (the moon), and *Shapash* (the sun). To the numerous Old Testament passages enlightened by the Ras Shamra texts Père de Vaux adds *Isaiah* 14:12-15.

Tell-Agrab.—A brief report on the campaign conducted during the winter of 1936-37 at Tell-Agrab, by Professor HENRI FRANKFORT, Field Director of the Iraq Expedition of the Oriental Institute, is published in *I.L.N.*, November 6, 1937, pp. 792-795 and color plate I. Excavation was continued on the site of the early dynastic temple. Some very interesting and important small finds were made in the sanctuary. Some of the earliest objects probably formed part of the temple treasury. The latest date from the last period of occupation, about 2700 B.C. The most interesting piece was a miniature copper chariot drawn by four asses. Despite the fact that it is only three inches in height, details of the chariot and harness are rendered realistically. Three copper statues were also found. Scenes of fights between wild animals are represented on a limestone box-lid and on cylinder seals of the earlier period. A sculptured mace-head of gypsum ornamented with lions' heads dates in the later period. Some fragments of the early painted pottery (about 3000 B.C.) are shown in color. The repeated occurrence of representations of bulls, especially in connection with ceremonies of worship, seems to imply that they were sacred animals.

Relations between Egypt and Palestine.—A very able discussion by R. KÖPPEL (*Biblica* xviii, 1937, pp. 443-449) of the relation between Ma'adi and Ghassûl states that, while partial and superficial comparison of materials from these two sites leads to a view that they demonstrate relations between the two countries (Egypt and Palestine), a more detailed comparison shows greater differences than similarities in ceramics, flints, buildings, etc. between the two settlements. The prob-

lem of origin of the wavy ledge handle (whether in Palestine or Egypt) comes into the discussion, but Köppel sees no light on this from Ghassûl. Conclusive evidence is still awaited for light upon the possible correlations between prehistoric phases of Egypt and Syria-Palestine, especially in the fourth millennium.

Excavations in the Plain of Amk.—Sir LEONARD WOOLLEY gives an account of his first season's work in the plain of Amk: "The splendid building with the colonnade and the big house of our fourth level are definitely Hittite; every detail of their architecture is reproduced in later Hittite buildings, and their pottery leaves no doubt upon the point. That they should be Hittite and should date back to the sixteenth century B.C. is a fact of real historical importance. The known Syro-Hittite buildings are late, and it has generally been supposed that the capture of Aleppo by Tudkalia of Boghazkeui about 1420 B.C. marked the beginning of Hittite domination in North Syria; a Hittite invasion of Babylonia by Hattusil late in the 19th century B.C. was regarded as a mere raid having no permanent consequences. Now we find the Hittites settled in North Syria long before the fifteenth century, quite possibly as a result of Hattusil's conquests; the frequent references in the Old Testament to Hittites living in Syria and Palestine in the patriarchal age, which have often been rejected as anachronisms, may yet prove to be sound history." (*Palestine Exploration Fund*, July, 1937.)

HITTITE

Hittite Hieroglyphs.—B. HROZNY has continued the decipherment of the Hittite hieroglyphs. In *Archiv Orientální*, May, 1936, he translates a "Hittite" hieroglyphic inscription on a stele from Kaiseri. He includes a photograph of the four sides of the monument and appends a complete transliteration. A descendant of prince Valu-Dadamemos placed a large jar of provisions in a vestibule and dedicated it perhaps to the *manes* of his father. Imprecations are uttered against anyone who takes possession of the vestibule and the jar. Gods and demons will punish the offender. The inscription is dated about the tenth century B.C.

In the issue of August 1936, he translates the inscriptions on four basalt altars from Emir Ghazi and Eski Kišla, to the east of Konia; they are reproduced in photographs with transliteration. The great king Tuthalijas (probably the IV,

ca. 1250 B.C.) dedicated them to the tree god Mel(a)satamas, to the god Apulunas (Apollo?), the goddess Rutas, and a fourth divinity. In the same number, Hrozný gives photographs with transliteration of inscriptions from Karakuyu, Fraktin, and Kara Dagh (I-VI), and a stele from Boghazkeui. The inscriptions from Kara Dagh show that toward the end of the second millennium B.C. there was in that place a great centre of "Hittite" hieroglyphs. In this number Hrozný also reproduces the obelisk of Izgin and translates the inscription. Prince Dadás had enlarged the border of his kingdom and erected buildings in the capital, Malatia. The obelisk was placed in Saliás (probably Izgin), which was the centre of a province over which he had placed Arnuvanta. The characters resemble those of the eleventh or tenth century B.C. Perhaps during the epoch of the dynasty of Barmeta (Barata?) there was an expansion by the princes of Malatia, as is shown by this obelisk.

In the issue of April-June, 1937, Hrozný considers the important and celebrated relief upon a rock at Ivriz. The god Santajas is represented as holding in his hands a vine laden with bunches of grapes and four stalks of wheat which terminate in large ears. He is being adored by king Varpalavas of Tuvana (Tyana). While he was the prince royal, he had planted a garden which his grandfather Valu-Dadas had dedicated to the god Santajas and offered that deity a libation. Matusa, the father of Varpalavas made a similar libation, in which he was followed by his son. This Varpalavas is the same as Urpalla of Tyana, a contemporary of Tiglath-Pileser III (746-728 B.C.). Apparently this Varpalavas is the second, while the first to bear this name was his great-grandfather.

CYPRUS

Cypriote Sculpture.—E. GJERSTAD discusses (*Arch. Anz.*, 1936, cols. 561-586) the development of style in Cypriote sculpture. The most valuable site for the archaic period is Ajia Irini, where some two thousand votive figures of terracotta, from twenty centimeters tall to life-size, were set up in a temenos. Three times between 625 and 500 B.C. the level of the temenos was raised by sand and gravel as the result of flood. After the first two floods the older sculptures were left as they were and new ones were placed on the higher level. Hence there is a clear division into three chronological groups: 625-560 B.C., 560-525 B.C., and

525-500 B.C. In the sculpture seven styles are distinguished: I, 600-560; II, 600-550; III and IV, 570-525; V, 560-525; VI, 550-500; VII, 525-500. Stone sculptures found at Arbos, in southeastern Cyprus, are divided into five stylistic groups, which are dated by comparison with Ajia Irini. Then four styles for Cyprus in general are established: Native Cypriote (625-525); Cypro-Egyptian (beginning ca. 560); Neo-Cypriote, where Egyptian and Greek influences are evident (550-500); and Cypro-Greek (540, at earliest, to 500). The original population had connections with North Syria and Anatolia in race as in art; the assimilation of Greek style resulted partly from the existence of a Greek element in the population after 1200 B.C. For sculpture from 500 to 380 B.C. the most valuable site is Vouni. From 450 B.C. on native character was largely lost and Greek style was weakly imitated, partly because political feeling led the people to consider themselves Greeks rather than Cypriotes. In the Hellenistic period there was a Cypriote renaissance, known largely from Soli.

GREECE

GENERAL AND MISCELLANEOUS

The Art of Archaic Greece.—About the twelfth century B.C., the Doric invaders destroyed pre-Hellenic civilization, especially that of Minoan Crete and of Mycenaean Greece, and inaugurated another culture. As a result, archaic Greek art of the succeeding centuries was exceedingly primitive since almost everything had to be relearned. By the end of the seventh century it had accomplished much of this task and had prepared the way for the Classicism of the fifth century, even though it was radically different from the latter. This seeming contradiction is resolved by a consideration of the unique development of primitive art in Greece.

Primitivism begins everywhere by being eminently utilitarian and uninterested in detached or aesthetic aims. Primitive drawing and low relief represent the human body with each part showing to the greatest advantage. Accordingly, the eye is so rendered that it can be seen entirely in a profile head; and the same principle accounts for the frontality of the torso joined to legs represented in profile. Likewise, the characters intended for the background are superimposed, rising above those in front either by their heads alone or by their entire bodies. In short, foreshortening and perspective, such as we conceive these to be, are

systematically repudiated, less on account of possible technical incapacity on the part of the artist than on account of his mental attitude toward the interpretation of forms. Primitivism seems to see reality only in two dimensions.

Furthermore, Primitivism does not wish to represent nature as it appears to the eye but prefers to subject it to mental designs, to make its irregular appearances regular by restoring these, as it were, to the geometrical forms from which they have strayed. The primitive artist thereby escapes the necessity of making a ceaseless study of nature, in order to correct transcriptions with a view to greater fidelity. As a result, the observation of Primitivism is deficient, often incorrect, since once the schematic outlines have been established they become traditional and serve as models from which succeeding artists take their inspiration as a matter of routine.

Although the art of archaic Greece resembled the Primitivism of Egypt and the Orient in these respects, it showed marked differences. First and foremost, it displayed its deep-seated originality in the choice of its themes. Whereas elsewhere the human form did not arouse an exclusive interest but was associated with plants and animals, the anthropomorphic spirit of Greece prompted the archaic artist to conceive of the gods as more human than they were elsewhere conceived. In this way the representation of the human form became the essential objective of archaic art, so that progressively man came to be the chief, and with Classicism almost the sole, object on the plain background of vases and reliefs.

The gymnastic exercises and athletic contests of Greece not only gave the archaic artist the opportunity to study the nude body and to learn better and better the forms, dimensions, and mutual relations of its skeletal framework and its muscularity, but also inclined him to portray the body nude as a thing of beauty in itself. Art is indebted, therefore, to Archaism for this fecund innovation.

Clothing, too, no longer plays only a utilitarian rôle, as it does elsewhere in primitive art. In the eyes of the archaic artist it is beautiful for its texture and for the variety of folds that it forms on the body; and thus it becomes for him, and for him alone, an aesthetic factor no less important than that of nudity.

Since the law of frontality forbids the representation of a statue in motion, the archaic artist utilizes the principles of the arts of projection,

drawing and relief, to construct a statue in motion in full relief. This innovation is equal in importance to the preceding ones, for no other art of antiquity knew it. The artist also begins to avoid repetition and exact symmetry, which are characteristic principles of Primitivism, and seeks instead to reproduce the manifold variety and irregularity which nature itself presents.

High relief was also a creation of the archaic Greek artist; for his increasing sense of reality could not content itself any longer with only two dimensions. Similarly, his attempts at foreshortening in drawing show a desire to penetrate the background and to give to bodies their natural corporeity.

These new concepts of reality and of beauty are extended to the choice of materials. In sculpture, wood, clay and limestone are gradually rejected for substances that are more beautiful and more satisfactory: marble, which reproduces human flesh, especially that of women, wonderfully well; and bronze, which shows to the best advantage the solid contours of the athlete's body.

In these novel ways the archaic Greek artist substituted for the intellectual realism of Primitivism his own optical realism. Accordingly, he refused more and more to repeat routine formulae which his prolonged examination of nature had proved to be incorrect and untrue in many details. By doing so, he also introduced in art the idea of progress, in the sense of continual betterment.

The continuance of Primitivism in Greece was definitely related to the fact that Greek culture of the archaic period was influenced profoundly by Egypt and the Orient, to which Greece was united by close commercial and political relations. The victory of Greece over the Persians awoke the national feeling and a national pride in things Greek. Art reflected these events by turning away from the Orient, and the definite break of Archaism with Primitivism was effected precisely at this time. The Primitivism of Greece had run its course almost entirely by 500 B.C. As soon as it turned its back completely on the confining influences of tradition and directed its full and free attention to the development of those novel ideas which it had itself engendered, it matured into Classicism. (W. Deonna, *R. Arch.* x, 1937, pp. 3-26.)

Excavations conducted by the Greek Archaeological Society.—Professor GEORGE OIKONOMOS has summarized the work conducted under the

auspices of the Greek Archaeological Society in the year 1936 in the *Praktika* of the Society for 1936, pp. 1-26. The *Ephemeris* for 1936 is almost completed and will appear shortly as well as the volume for 1937, a centenary memorial issue, to which scholars all over the world have contributed. More elaborate reports on the individual excavations are published by the Directors, as follows:

Achaia.—Dr. N. KYPARISSIS continued his investigation of the Mycenaean cemeteries during the year 1936 and a brief report is published by him, pp. 95-99. Work was concentrated on the cemetery of the third prehistoric site, located around Patras, which was found by the ridge of Koukoura near the winery of Klauss. The cemetery apparently consists of chamber tombs and the most characteristic contents are vases of late Mycenaean shapes with a geometric decoration. One of the graves alone yielded fifty-five complete vases. A bronze spearhead, beads and whorls are also among the finds. All these vases are now exhibited in the Museum at Patras.

Amnisos.—Dr. SP. MARINATOS reports briefly on his work at Amnisos, pp. 81-86. The objective of the 1936 campaign was to determine the extent of the sanctuary. It was proved that it extends considerably to the south and to the west, but at the close of the exploration its boundaries were not definitely determined. The sections uncovered belong to the Roman Period and apparently were used by the personnel of the temple. Among the rich finds most important is a badly preserved female head made of poros stone. The eyes were inserted and apparently were of ivory or bone. Such an eye, made of ivory, discovered in 1935, was found to fit in the socket of the left eye. The excavator believes that the head is archaic, although it reminds one strongly of Dedalic products. Pieces of a subgeometric pithos, bearing on its surface seals with the representation of a running horse; fragments of votive offerings of clay and bronze; bone needles; and five inscriptions of Roman times are also among the finds.

Eleusis.—Dr. K. KOUROUNIOTES and Mr. JOHN TRAVLOS describe and illustrate their valuable conclusions on the course of the Eleusinian Sacred Way, pp. 27-34. The course of this road to the temple of Aphrodite was well known and could easily be seen at a short distance from the modern highway. The latest investigation proved that beyond the temple the road forked. The right branch crossed the mountainous ridge which sepa-

rates the coast of Skaramanga and the lake of the Rheitoi, and passing through the small valley of the Rheitoi, it reached the Thriasian plain. The left branch of the main road followed the direction and the line of the modern road up to a point beyond the ridge, and then forked again. One of its branches connected with the road which was carried over the ridge, while the other, running along the coast line, was continued to Eleusis. Sections of these roads were cleared at various points. Their width varied from four to five meters and they were paved by small and larger stones carefully fitted. In the course of the study of the Sacred Way, the foundations of a stone building, perhaps a "Pharos," were discovered on the low hill to the north of the lake of the Rheitoi.

In pages 34-40 Dr. Kourouniotes describes briefly the large Roman house which he and Mr. Travlos uncovered last year. This house, the best preserved in Greece, is located immediately below the small Museum of Eleusis. It is divided into fourteen rooms. It measures 26.50 x 13.50 meters, and is oriented from north to south. Beautiful colored mosaics cover the floors of the rooms and of the court; photographs of these are given.

Kalamitsa.—Mr. G. BAKALAKIS continued the exploration of the structure discovered in 1935 on this site, and a brief report of his work is given on pp. 74-81. The building is composed of three divisions, in two of which stone hearths were found. In the filling of the structure were found a great many sherds among which were two pieces belonging to a black-figured vase with a scene of a chariot and hoplites. These and other fragments of pottery seem to indicate that Kalamitsa was inhabited in the sixth century B.C. A number of inscribed handles of amphorae were also found.

Marathon.—Professor GEORGE SOTERIADES, continuing his investigations in the valley of Marathon, verified a number of points which will enable him to make a complete study of the topography of that section of Attica (pp. 41-42).

Megara.—The work conducted at Megara in 1936 is briefly described by Mr. JOHN THREPIADES, pp. 43-56. Excavation was carried on at two points. In the small square on the north-western slope of Karia, was uncovered a large structure of Roman times, apparently a bath. It was used in later times also and until the sixth century A.D., because within its area some graves were found contemporary with nineteen coins of Justinian and his immediate successors, also found in the structure. Below the foundations of the

bath remains of an older building were uncovered dating from the end of the fifth and the beginning of the fourth century B.C. The cave of Mourmouni was the second area which was investigated. Thus far only remains of the Roman period have been discovered, but the work has not as yet been completed. It is hoped that further work will prove that the cave was used for ritualistic purposes.

Nea Anchialos.—Professor GEORGE SOTERIOU gives a brief report of his investigations at Nea Anchialos, pp. 57-67. During the year 1936 he completely uncovered the fourth Christian basilica of Thessalian Thebes, which dates from the beginning or the middle of the seventh century. This basilica proved very interesting because it exhibits unusual features. The ground plan of the basilica proper is given a cruciform shape by the addition of two rectangular rooms at the side of each of the aisles. Two rectangular rooms are also added to the ends of the narthex, and two more are placed on either side of the apse. The latter apparently were used for burial purposes and through a door connected with the side aisles. A large section of the atrium was also cleared. Of special interest are the mosaics which were found covering the aisles and the side chambers. The mosaics of the aisles exhibit geometric patterns, while those of the chambers are enlivened by representations of birds, animals and fish. The floors of the narthex and nave are paved with marble. A number of pieces of architectural and decorative sculpture were found which corroborate the evidence obtainable from the mosaics as to the date of the basilica. Of interest are a number of Aramaic tomb inscriptions proving the existence of a Jewish colony in Thebes in the early centuries of the Christian era. (Cf. *A.J.A.* xli, 1937, pp. 337-338.)

Palaeopolis.—A brief report by Messrs. A. XYNGOPOULOS and J. PAPADIMITRIOU on the basilica of Palaeopolis described by Mrs. E. P. Blegen in the *A.J.A.* xli, 1937, p. 338, appears in the *Praktika*, pp. 99-110. Also, a report by Mr. M. KALLIGAS on the work which he carried on in Saloniki, in the Church of Santa Sophia, is published, pp. 111-118.

Sikyon.—A brief report by Professor A. ORLANDOS on his work in Sikyon appears on pp. 86-94. The excavator continued his investigations in the gymnasium of that city. By the southernmost fountain, which is now partially restored, he found a flight of twenty steps, 1.35 m.

wide, leading to the lower terrace. The South Stoa of the upper terrace was also cleared. A number of architectural members found in it will make possible the reconstruction of the stoa, and they prove further that the stoa was made during the third century A.D., after the great destruction of the city by an earthquake, which took place in the second century A.D. A number of graves accidentally discovered a short distance from the village of Mouliki were also explored. They yielded aryballoid vases and small red-figured lekythoi of the fourth century. On one of them Thetis is represented bringing weapons to Achilles. At a site known today as Tragana, within the circuit of archaic Sikyon, more graves belonging to the fifth century were discovered and cleared. They yielded a number of vases and a bronze mirror of exquisite workmanship. This object has already been described and illustrated in the *A.J.A.* xli, 1937, pp. 336-337.

Western Macedonia.—The investigations carried out in Western Macedonia by Professor KERAMOPOULOS are briefly reported on pp. 67-73. They centered around the village of Syndendron, to the west of Grevena, where various antiquities were found at times by the teacher of the village. Near the site of Svatos, remains of an ancient fortified village constructed on the principle employed by Philip the Second were uncovered. The most interesting of the objects found is the handle of a bronze oinochoe bearing a female head at its base. Apparently the site was occupied in prehistoric times, since a great quantity of prehistoric sherds and some stone tools were found on its surface. A small museum was started at Grevena where the antiquities from the surrounding area are being collected.

Greek Archaeology.—*R. Et. Gr.* 1, 1937, pp. 67-153, presents the usual Archaeological Bulletin, an excellent summary in some detail, having the purpose of bringing up to date, since the preceding year, the entire field of work in Greek archaeology. The sections on numismatics, glyptic and goldsmithing are postponed to a later issue.

Wheat.—C. WEICKERT publishes (*Arch. Anz.*, 1936, cols. 586-595), in a eulogy of Wolters, a golden wheat-plant, "once held by the hand of a priestess of Demeter in a grave at Syracuse."

ARCHITECTURE

The Older Parthenon.—W. B. DINSMOOR (*Jb. Arch.* I, lii, 1937, pp. 3-13) and W. DÖRP-

FELD (*ibid.*, pp. 14-16), who had written at length on the problem of the Older Parthenon, comment briefly on recent contributions (cf. *A.J.A.* xli, 1937, p. 320). According to Dinsmoor, Zschietzschmann's early date (540 B.C.) for the beginning of work connected with the temple is disproved by sherds of the period 510-490 B.C. in the lower layers of the "Poroschutt." As for Kolbe's date, 479 B.C., three points are considered. There not only is no evidence that the humus stratum extended beyond the Mycenaean wall, but the steep slope, the appearance of the wall, and the excavators' testimony make the contrary certain. Three potsherds are fully discussed and found not to support Kolbe. Whatever the origin of the redness of poros blocks in the substructure of the Parthenon, the drums from the columns of the older Parthenon are unquestionably burned and calcined; hence they are pre-Persian. Dörpfeld approves Dinsmoor's reply to Kolbe, but still maintains that there were two projected pre-Periclean temples, both before 490 B.C. He will discuss the whole matter in his book "Die Haupttempel der Akropolis."

SCULPTURE

Boeotian Sculpture.—R. LULLIES publishes (*Jb. Arch.* I. li, 1936, pp. 137-153) a study of early Boeotian sculpture. As Furtwängler had recognized, there was no independent Boeotian art, but the distinct provincial character was retained in sculpture as in other fields. A kouros head in native limestone from Ptoion resembles in some points very early things, but is inconsistent in style and belongs to 550-525. A head from Eleusis, imitated from the Attic Rampin head, is similarly inconsistent and Boeotian of about the same date. Boeotian kouroi differ from Attic in the manner in which single parts and features are unadjusted to one another, the flat rendering of the body, the hard modeling of the surface, and the unorganic indications of anatomical structure. Details are borrowed from Attic works without regard to their significance. The Strangford Apollo is Boeotian, as is another Apollo in the British Museum. A small limestone statuette in the Louvre, hitherto considered very early, is Boeotian of the sixth century. The Barracco Kriophoros is copied from a Boeotian archaizing original. Some Apollos show influence from the islands rather than from Attica. The stele of Dermys and Kitylos was made soon after 550 B.C. A stele in Boston is typically Boeotian.

Various other sculptures are mentioned. Even in palmettes Boeotian style is discernible.

The Frieze of the Erechtheum.—In completion of his previous study (cf. *A.J.A.* xli, 1937, p. 126) L. PALLAT publishes a sketched reconstruction, with existing fragments placed, of the frieze of the north porch of the Erechtheum (*Jb. Arch.* I. lii, 1937, pp. 17-29). The accompanying text explains certain differences in detail from his earlier work, and gives the sources for the reconstruction where no fragments exist; usually these are vase-paintings of the Kertch style. The chest of Erichthonios is shown twice on the north side, though no fragment of it exists.

Parthenon Metopes.—In *R. Et. Gr.* 1, 1937, pp. 175-205, CH. PICARD discusses the *Iliupersis* of the Delphic *lesché* on the northern metopes of the Parthenon. It is proposed to read the metope frieze in the same direction as the Panathenaic frieze, from the northwest angle to the northeast angle, reversing the sequence of Praschniker. The north triglyph frieze was sculptured following the Gigantomachy of the East side with which it is related; the north side showing the fatal night of Ilium, as referred to by both the Little Iliad and the Aeneid, coming naturally between the rising of the moon and the sun rising from the waters, Praschniker's XXIX and I respectively. The west and south sides taken together form another distinct "climatic" pair, the effect being as though the temple were cut by a diagonal from northwest to southeast. At Delphi the figure of Antenor, at Athens that of Aeneas, forms the center of an act of pardon and release at the hands of Zeus. The Cnidian *lesché* at Delphi was painted by Polygnotos before 458. It is very likely, if not certain, that Pheidias examined it and imitated it in the sculpture we are studying. Aeneas' ancestry in Erichthonios, and the Dardanian traditions gave the Trojan refugee a peculiar place in Athens, which Antenor could not touch. Reading the north metopes from right to left gives the judgment of mercy, Aeneas with his father and Ascanius, Aphrodite as protectress as Aeneas guides Anchises—the classic Greeks would never have had him carried like a dwarf—Creusa standing immobile and detached, as in the Aeneid. Interesting suggestions of the Aeneid make one believe that Vergil may have had the frieze in mind when he wrote his poem. The embarkation scene follows upon the powerlessness of Menelaus in the presence of Helen, and in it we see a young man quieting a frightened horse (not a centaur):

cf. Pausanias' description of the *lesché!*, demobilization, going on board and the like, much as in the pictures at Delphi.

The order from west to east (right to left) was the order of the Panathenaic procession, permitting the members of the cortège to meditate in parallel as they passed on both the Panathenaic frieze and the moral lessons of the Sack of Ilium, the greatest punishment that gods had inflicted upon men, the lesson of Nemesis, and in a sense of the personal victory of their own great goddess Athena. The paper is valuable for many small details, such as suggestive comments on origins in both art and literature.

EPIGRAPHY

Geranos.—In *R. Et. Anc.* xxxviii, 1936, pp. 413–415, R. VALLOIS writes of the so-called Geranos (ἢ καλουμένη γέρανος) listed in the treasure of the Artemision of Delos. Through the temple-inventories we know certain facts about this anathema but are unable to form a clear conception of just what the object was. References to it are found in *C.I.G.* II², 2, 1, p. 282, No. 1643, 11, 13–14 (364 B.C.); *C.I.G.* XI, 161, B (279 B.C.) and 162, B (278 B.C.); F. Durrbach, *Inscr. de Délos*, 296 B, 399 B (192 B.C.); F. Durrbach and P. Roussel, *Inscr. de Délos*, 1444 (192 B.C.).

The Geranos in these lists of the Delian amphictyones, hieropoioi and (later) Athenian treasurers is mentioned along with silver finger-rings and earrings; it had a necklace around it or hanging from it; μῆλα . . . ἀπὸ τῆς γεράνου, ὀλκή Η[Η]Π are listed; the adjective ἀργυρᾶ is twice applied to it; its weight seems to have diminished from 4428 to 3860 drachmae (or, including perhaps an Athenian restoration, to 3900 drachmae). Vallois had once regarded it as a statue of one of the dancers of the "crane-dance," adorned with jewelry, but at present he wonders if it may not have been a garment like a coat-of-mail (ἀλυσιδωτός) which may, by its shape or appearance have suggested a crane (γέρανος).

Mantinea.—MARGHERITA GUARDUCCI interprets anew "Un Giudizio del Santuario di Alea a Mantinea" (*I.G.* V, 2, 262). Conclusions: the thirteen persons named in the first lines of the inscriptions were convicted by the goddess and by a court; the penalties were confiscation and exile; the convicts' property including slaves became the property of the goddess; such houses as were not occupied by the slaves, however,

became the property of the citizens of Mantinea, in the absence of any state treasury (cf. the proposal in 483–2 regarding the product of the mines of Laurium); finally the goddess' curse is imposed on those of the thirteen convicts who actually perpetrated, not merely witnessed, the murder in Alea's sanctuary of certain men and a girl, and this is, therefore, the crime for which the thirteen had been tried. (*Stud. e Mater. di Stor. d. Relig.* xiii, 1937, pp. 57–67.)

Spartan Offering at Olympia.—In *Atti della Pontificia Accademia Romana di Archeologia* (Series 3), *Rendiconti*, xii, 1936, pp. 125–132, MARGHERITA GUARDUCCI advances a new theory about the φιάλη or ἀσπίς affixed as a votive offering to the δέτωμα of the temple of Zeus at Olympia by the Spartans and their allies to commemorate their victory over the Athenians at Tanagra in 457 B.C. According to Pausanias (V, 10, 4), the ἀσπίς χρυσῆ was beneath the gold statue of Nike, which crowned the eastern pediment of the temple, and he states that the epigram on (?) the shield (τὸ ἐπὶ τῇ ἀσπίδι) showed who were the donors of the shield and the occasion of their offering it. It reads as follows: Ναός μὲν φιάλαν χρυσέαν ἔχει, ἐκ δὲ Τανάγρας τοι Λακεδαιμόνιοι συμμαχία τ' ἀν[έ]θεν[δ]ρον ἀπ' Ἀργείων καὶ Αθαναίων καὶ Ἰώνων τὰν δεκάταν νίκας ἑνεκα τῶ πολέμω.

The discovery of three fragments of a marble stele (Dittenberger-Purgold, *Inschr. v. Olympia*, 253; Tod, *Histor. Inscr.*, 27), decreasing in breadth toward the top, and bearing the identical epigram in vertical lines, to be read from top to bottom, seemed to require interpreting the words of Pausanias, ἐπὶ τῇ ἀσπίδι, as not meaning written "on the shield," but rather "near the shield," or better, "relating to the shield." The stele can hardly have formed a base for the shield or the Nike, for its letters, slightly more than two cm. in height could certainly not have been legible at a height of more than twenty cm. Furthermore it has traces of two additional lines below, which probably stated the names of Sparta's allies. Moreover Pausanias' text reads τῶ πολέμῳ—the Doric form—while the inscription reads τοῦ πο[.], and the use of ΟΥ (for Ο) and the sign Χ at such an early date shows that the inscription is Corinthian and not Spartan. This was formerly explained by supposing that the Spartans had commissioned the Corinthians to fabricate and set up the shield. All these difficulties lead Guarducci to conclude that this can-

not possibly have been the inscription read by Pausanias. She supposes, comparing an *ἀστρίς* on the treasury of the Megarians, which is referred to as "λέγοντα" (i.e. as *itself* uttering words), that a large *concave* disk (*φιάλα*), perhaps two meters in diameter, proportionate to the size and grandeur of the temple, may have covered, like an acroterion, the apex of the pediment beneath a sculptured Nike, and that this bore in letters legible from below the epigram quoted by Pausanias. With this hypothesis accepted, there is no reason to suppose that the Corinthians fashioned this shield-like disk, since the Spartans (e.g. Gitiades in the sixth century) were famous for their work in bronze. The rudeness of the poem is better suited to Sparta, more famous for skill in arms than for grace in poetry. The author touches rather lightly on the possible reason for the erection of the stone stele, repeating the epigram in Corinthian letters, but thinks that it too may have been set up not long after the victory but had disappeared before Pausanias' time. This date (457 B.C.) furnishes then an important *terminus ante quem* for the completion of the temple of Zeus, which was probably finished in time for the celebration of the Olympian games in 456 B.C.

NUMISMATICS

Coin Hoards.—SYDNEY P. NOE has made an extremely valuable contribution to the science of numismatics, *Num. Notes and Mons.* No. 78, 1937, a second edition and enlargement of his former monograph, *A Bibliography of Greek Coin Hoards*, which appeared as No. 1 of the same series. The present edition lists eleven hundred and eighty-six hoards from practically everywhere in the ancient world, includes Persia and India, and is the nearest to completeness yet attained. It is admirably indexed, by mints and rulers, geography, finding-dates, and authors.

Since the modern science of numismatics depends so much upon the contents and dates of coin-hoards, this work of three hundred and sixty-two pages will be indispensable to the numismatist, and rounds out nicely the previous works on hoards that have appeared in the series.

ITALY

GENERAL AND MISCELLANEOUS

Egyptian Objects in Etruscan Tombs.—W. FREIHERR VON BISSING discusses Egyptian statuettes and amulets found in Etruscan tombs.

Entirely absent are objects having to do with the cult or mysteries of Osiris. Most common are the deities of Memphis, then Maet, goddess of truth and justice, the sphinx, the falcon, etc. Less frequent are the Theban divinities. Since Egyptian and Graeco-Egyptian objects are so numerous, the paucity of Asiatic monuments fails to indicate any commerce between Etruria and Asia Minor, which is surprising indeed if the Etruscans came shortly before the date of the tombs at Vetulonia and Narce. (*Stud. e Mater. di Stor. d. Relig.* xiii, 1937, pp. 1-9.)

ROMAN

GENERAL AND MISCELLANEOUS

Meta Romuli.—In *Atti della Pontificia Accademia Romana di Archeologia, Rendiconti* xii, 1936, pp. 21-68, B. M. PEEBLES, of the American Academy in Rome, writes of the so-called *Meta*, or *Sepulcrum, Romuli* and of its destruction by Pope Alexander VI in 1499, as described in a letter, hitherto unpublished, written in Latin by Michele Ferno to a certain Raffaele Maffei (called by him, Volaterranus). This pyramidal monument, rising from a base forty cubits square, with slightly concave sides, to a height of some forty or forty-five cubits, stood near the corner of Via Cornelia and Via Triumphalis in the Borgo of Rome, and as described in the letter of Ferno, was removed with considerable difficulty owing to its massive concrete structure (it was in ancient times covered with slabs of marble) in order to make way for a thoroughfare from the Castle of St. Angelo to the Papal Palace. In a somewhat truncated form it was used in late mediaeval times as a protective outpost for archers in defense of the St. Angelo fortress. It contained, Ferno tells us, a sepulchral chamber and may have been the *Pyramis in Vaticano* referred to in the Pseudo-Aeronian commentary to Horace as the "tomb of Scipio." The scholars of 1500 A.D. referred to it variously as *Scipionis sepulcrum, sepulcrum Epulonum*, or, by the common people, as *Romuli meta*. The second of these names was probably due to a confusion with a similar monument near the Porta San Paolo, called the Pyramid of Gaius Cestius, VII Vir Epulonum, and supposed to contain the tomb of Remus or according to some accounts the remains of both Romulus and Remus. The letter is fully annotated and thirty-eight mediaeval pictures in which the *meta* is represented are classified and listed.

Legionary Standards.—The fourth square in

the upper part (*attico*) of the Arch of Constantine in Rome, which depicts the *Suovetaurilia* celebrated by Marcus Aurelius after his victory over the Marcomanni, shows, in the second and third planes of the relief, which, in the lack of perspective drawing, are indicated by an increased height of the figures, a fine display of seven legionary standards. ALFREDO MONACI in *Atti della Pontificia Accademia Romana di Archeologia, Rendiconti* xii, 1936, pp. 75-78, discusses the appurtenance of these to various well-known legions of the time. The first belongs, he thinks, to the Praetorian Guard and shows the bust of the emperor under a vexillum of quadrate form. The second is quite unusual in form: above an eagle, in profile toward the right, is seated a toga-clad divinity with a sceptre in his right hand; from the eagle's beak hangs a basket, containing the entrails of sacrificial victims and on its front side is a portrait head. A modius-like headdress, Monaci thinks, comparing a Zeus-Serapis in the Capitoline Museum (*Nuova descrizione*, p. 90, No. 2, Stanza Terza detta del Sarcofago), proves that this was the standard of the third Cyrenaic legion, for the cult of the Serapid Jupiter of the lower world was widespread among the Egyptian legionaries and the emblems of most of the other legions are known to us, only those of the third Augusta, the fourth Scythica and the third Cyrenaica remaining unknown; the first two of these could not have taken part in this Danubian expedition of Aurelius, narrowing the possibilities down to the third Cyrenaica. The history of this legion is then traced with references to the literature, thereto pertaining. Along with the twenty-second Deiotariana, the third Cyrenaica was the first to proclaim Vespasian emperor; at the siege of Jerusalem (70 A.D.) two thousand auxiliaries of this legion took part; in 116 (*C.I.L.* III, 13, 587) a vexillatio of this legion dedicated an epigram, still extant, "Jovi Optimo Maximo Serapidi"; in 120 it was transferred to Bostra (Claudius Ptolemaeus, *Γεωγραφικὴ Ὑφήγησις*, V, 17, 5). The standards of the first Minervia, the fourteenth Gemina Martia Victrix and the twenty-second Primigenia with the eagle holding an acorn or crown are also mentioned. The two standards to the right, the author argues, may have been those of the twentieth Valeria Victrix and the thirtieth Ulpia Victrix. He refers the sculptures to the first phase of the Bellum Marcomannicum and would date them later than January 169 owing to the absence of Lucius Verus, and not later than 174, the date

of the emperor's return, and perhaps not later than 172, if the prefect represented behind the emperor is Macrinus Vindex and not Bassaeus Rufus.

An Altar at Ancient Carthage. — *Ibid.* pp. 157-168, BIANCA MARIA MAJ describes an altar of quadrangular form found in 1916 in the Garden Saumagne on the slopes of the hill Byrsa at ancient Carthage. This has been named by Poinsot, who connects it with a little temple near it built by P. Perellius Haedulus, its *sacerdos perpetuus*, "Ara Gentis Augustae," the word *gens* being used in the sense of *domus*.

On the two main faces are relief figures of Apollo and Roma, seated in similar attitudes at the right of the scene: Apollo, on a throne ornamented with griffins, holds in his right hand a branch of laurel and in the left what is perhaps a plectron, for nearby is a lyre; in the free space at the left is a tripod. Roma is seated on a pile of armor, her right hand supporting a pilaster on which a flying Nike is placing a round shield; in front of her is an altar bearing the emblems of Augustan Rome, globe, caduceus and cornucopia. On one of the shorter sides of the altar a sacrifice is represented with Augustus officiating, while on the opposite short side Aeneas, as *archegetes* of the race is seen carrying Anchises on his shoulder and leading the boy Ascanius. Rostovtzeff assigns the altar to the years immediately following the death of Augustus and thinks of it as inspired by the intent to honor Tiberius by coupling him with his great predecessor. Poinsot, on the basis of a minute examination of the altar and its surroundings, especially bricks bearing the name of Perellius Haedulus, fixes as a *terminus post quem* 27 B.C., when the senate dedicated to Augustus the *clipeus aureus* (Mon. Ancy. 6-18) and as a *terminus ante quem* the death of Augustus. The altar is an adaptation of Greek traditions to a Hellenizing Rome. Maj lists a number of such altars and treats of parallels to these representations of Roma, Apollo and Aeneas. A résumé of such deifications of Rome, dating back to the second century B.C. is given and Augustus' unwillingness to have temples and statues erected in his honor is commented on.

ARCHITECTURE

Problems connected with the Hippodrome. — In *Byzantion* xi, 1936, pp. 383-390, A. PIGANIOL discusses the Imperial loge in the Byzantine hippodrome and the problem of the covered hippo-

drome. At Rome the imperial loge was first erected under Domitian, as a dependance from the new Palatine palace. Suppressed by Trajan it was re-established later. It seems to have combined Augustus' *pulvinar* (on the ground level) with a screened *cubiculum* built above, for privacy. The *creta* may have been shifted from the *carceres* to the axis of this loge, and the *editor* would then simply sign, by dropping the *mappa* in his box over the *carceres* to the judges at the line.

Malalas tells us that Constantine constructed the Byzantine imperial loge in imitation of the one at Rome. The lower floor, *stama*, contained the processional statue of the Tyche of the city and corresponded to the Roman *pulvinar*. But the "scratch" was at a distance from the *stama*. The position of the *carceres*, on the other hand, would require a long covered gallery encircling nearly one-fourth of the hippodrome, if the imperial loge was over the *carceres* and the emperor went to it from the palace of Daphne. Such a passage is never mentioned in the most detailed palace itineraries. Again, Malalas speaks clearly of the emperor's loge facing the eastern side of the circus. This reference is to be taken with a passage in the Book of Ceremonies (Bonn Ed., Vol. I, p. 507), the itinerary of Theophilus, where the emperor is described as passing (on horseback) through the uncovered hippodrome, under the *cathisma*, then by way of the palace of Daphne, finally by the covered hippodrome (alighting from his horse) and by the *Skyla* (into the palace). This shows that the *cathisma* was not over the *carceres* but between the hippodrome and the palace, as has been demonstrated by the Abbé Vogt. Ebersolt admits the existence of two distinct regions in the great hippodrome: a covered and an uncovered hippodrome; but then it is impossible to pass from one to the other by going up the *cathisma*. Vogt regarded the covered one as part of the imperial palace. He could have presented his interpretation with much more assurance if he had observed that at Rome, between the palace of Domitian and that of Severus, there still stand considerable remains of a small hippodrome surrounded by a covered peristyle. Byzantinists would profit by comparing the palace plans of Constantinople with those of Rome; and, by ricochet, some uncertainties of the Roman arrangement might also be clarified. The parallelism is surprising. In each city the palace is east of the hippodrome; the principle entrance at the north. The palace at Rome, called that of Domitian,

has, in east to west order, three chief halls: *aula regis*, the peristyle *Sicilia*, *triclinium*; these correspond in the Daphne palace at Constantinople to the consistory, *Augusteus* (?), and the *triclinos* (*sic*) of nineteen couches. The Byzantine imperial loge was vaster than the Roman, but like it to the north. Even the sacred well to the southwest of S. Sophia may be compared to the ancient well south of the temple of Cybele and which may really be the *mundus* of the city of Romulus. Further interesting parallels of temples and churches in the two cities are suggested. Ebersolt would have done well not to omit Rome when he was studying Spalato and Ravenna in an effort to picture the vanished palaces of Byzantium. The Palatine has furnished an evident solution of the covered hippodrome, which obliges us to correct all plans hitherto prepared of the palaces of Byzantium.

SCULPTURE

Aphrodisias.—During the past season excavations were begun by the Italian Archaeological Mission in Anatolia at the site of ancient Aphrodisias. Important discoveries were made almost immediately. They are described briefly by the Director of the Expedition, Professor GIULIO JACOBI, in *I.L.N.*, December 18, 1937, pp. 1095-1097. The remains of a large marble portico of Ionian style were partially cleared. The building probably served as the agora of the ancient city. So far about one hundred meters of the epistyle, frieze and cornice have been found. An inscription on the epistyle shows that the building was dedicated to Aphrodite, members of the Imperial House, Augustus, Tiberius and Livia, and the Roman People. The frieze is decorated with a continuous series of sculptured heads, joined by festoons. One hundred and forty heads have been discovered, representing divinities, mythological characters, and portraits. They form an exceptionally important series of sculpture of the Augustan-Tiberian age. Masons' marks are cut in both Greek and Latin letters, indicating that the sculptors were both Greek and Roman, a pertinent fact in any discussion of the nationality of sculptors of the Roman period.

Bronze Head in Florence.—In *La Critica d'Arte* ii, 1937, pp. 49-54, A. MINTO publishes a bronze head in the Museo Archeologico in Florence. The head, which once belonged to a heroic statue of a Roman emperor of the middle third century, has been identified as a portrait of C.

Vibius Trebonianus Gallus. In spite of technical differences, it bears a striking resemblance to the portrait in the Metropolitan Museum in New York, the portrait in the Museo delle Antichità in Istanbul, the head of a statue in the Museo Gregoriano in the Vatican, and medallions of Trebonianus Gallus in Florence.

Constantinian Consoles.—The Basilica of Maxentius was perhaps completed by that ruler; it was then modified, chiefly by the construction of an apse on the north side. Unlike the rest of the basilica, this apse was richly adorned with niches, decorative columns and pilasters, etc. There were ten consoles, of which eight are still in place. The top of each console has about the same measurements as the back. The canal on the side does not continue into the "volute," which is a small circle containing a rosette. The field on the side is occupied by a half-palmette or by acanthus; the latter is of an eastern type. On the front of each console is a Victory, moving to right or left. In style and technique there are marked similarities to ornament at Spalato. The Victories are closely allied also to the west and south friezes of the Arch of Constantine; the same men must have worked on both; the north apse is thereby dated soon after the capture of Rome by Constantine in 312. Fourteen other consoles were built in the eleventh century into the "Casa di Rienzo" in Rome. Despite some differences in size and style, all probably belonged to one Roman building. There were probably four others; the eighteen would be symmetrically placed. Two had Victories on the front; two, putti with hares; two, moving putti; two, groups of Cupid and Psyche; four, garland-carriers; two, mourning Cupids; two, boys with staffs; and two, putti with baskets. The consoles differ considerably in details, and as a group they differ from those of the basilica, particularly in the freer use of the drill; but the general type is the same, and comparison with the friezes of the Arch of Constantine places the Rienzo consoles also between 310 and 315. The two groups of consoles were made by two groups of workmen, not unrelated. Another console of the same type was in the Villa Rospigliosi; it probably came from a villa of Maxentius. Probably the sculptors went to Rome after working at Spalato. (H. KÄHLER, *Jb. Arch. I. li*, 1936, pp. 180-201.)

Sculptures of the Arch of Constantine.—In the army of Constantine, African Moors are recognizable by the arrows in their headdresses; they appear on many monuments of the third and

fourth centuries A.D. Gallo-German troops are recognizable by their horned helmets and the devices on their shields. Much of the sculpture of the arch reflects traditional Roman religious ideas; but the raised right hand of Sol Invictus is oriental, and the same gesture in Constantine himself is evidence of an oriental identification of emperor and Sun. (H. P. L'ORANGE, *Arch. Anz.* 1936, cols. 595-607.)

INSCRIPTIONS

Fasti Ostienses.—In *Atti della Pontificia Accademia Romana di Archeologia, Rendiconti xii*, 1936, pp. 179-184, ATILIO DEGRASSI discusses the light cast on the two Dacian wars of the emperor Trajan by the Fasti Ostienses, found in the excavations carried on in recent years by Guido Calza at Ostia. Of the twenty years of Trajan's reign, the chronicles of twelve, 101-103, 107-113 and 115-116 A.D., are now extant. The relation of the last of these periods to the Parthian war, Degraissi has already discussed in the *Congresso di Studi Romani*, and he here treats of the fasti of the years 101-103 and 107-109, in their relation to the Dacian wars. He proposes as a substitute for Weickert's emendation of *C.I.L. XIV*, 4538 et addit. (p. 773) 11.1-2, [Imp. Traianus Aug.] vocavit [regem] Decebalum ad] tribuna [1 suum], which he regards as rather inept and inconsistent with the added fragment in the *C.I.L.*, the reading [Decebalus, rex Dacorum, in] vocavit [fide]m] (or some such word) . . . [veniam ante] tribuna [1 precat] us est, and compares Dio Cassius, LXVIII, 9, 6: (Decebalus) ἀκων ὀμολόγησε πρός τε τὸν Τραjanὸν ἐσελθών καὶ ἐς γῆν πεσών καὶ προσκυνήσας αὐτὸν καὶ τὰ ὅπλα ἀπορρίψας, (a scene which is represented on the Trajan column). The third line, de Dacis [trump] havit, confirms what we already knew about Trajan's first triumph over the Dacians in 102 and the omission of any mention of the games held in honor of this victory, which were probably recorded in the (defective) fasti of the next year, leads the author to think that this triumph took place in the last half of December, 102 A.D.

As to the second Dacian war, we learn from the inscription on the base of the statue which Athens dedicated to Hadrian during his archonship in 112-113, that he had served prior to this time as *praetor* and as *legatus* of the legion first Minervia during the second Dacian war and then as *legatus Augusti pro praetore* in Pannonia and at a later

date had been made consul. Mommsen, on the supposition that Aelius Spartianus (*Scriptores hist. Augustae, Hadr.*, 3, 8) had confused the consuls Suranus *bis* and Servianus *iterum* (102 A.D.) with Suranus III and Senecio II (107 A.D.), would date this praetorship in the year 107 and the consulship in 109 (his praetorship in 102 is impossible, for he was made tribune only in 105), and would regard the war as lasting three years, from early in 105 to the fall of 107. That it ended in autumn is shown by the reaping scenes on the Column of Trajan. Degrassi, on the basis of combinations drawn from the fasti *C.I.L. XIV*, 4539, which show that Hadrian was made consul in 108, and references to a *congiarium* (donative) on the 26th of May, 107 (or the 25th of June: *Iul[nias* or *Iullias*), thinks that Hadrian was sent to Rome by Trajan to oversee the triumphal gladiatorial contests (*munus*) at the close of the war in 106, while he himself stayed on to settle affairs in Dacia, where he was later joined by Hadrian. From the fact that a so-called second *munus* of one hundred and seventeen days (or 123) and one thousand gladiators, extending over the period from June 4, 108, to November 1, 109, is mentioned (cf. *Dio Cassius LXVIII*, 15, 1), Degrassi is convinced that the *primum* or *prius munus* must have been the one managed by Hadrian, to whom Trajan had given two million sesterces to meet its expense. The three *congiaria*, of which we know, must have been then: one, at the beginning of his reign in 99 A.D., a second at the close of the first Dacian war in 102, and a third early in 107, a month or two after the close of the second war in 106. This probably amounted to five hundred denarii per man, the munificence of which was undoubtedly due to the rich spoils captured in Dacia.

BULGARIA

A New Monument of the Thracian Horseman.—The first relief discussed in this article (*R. Arch.* x, 1937, pp. 39–42) was found in 1936 at Kaša-Bouroun, Bulgaria, and is now in the Museum of the Library of Tatar-Pazardjik. Its value lies in the additional material which it provides for the study of the iconography of the Thracian Horseman. The remaining fragment of this document consists of the left side of a marble slab, 19.5 cm. in height, 18 cm. wide, and 4.5 cm. thick, with Greek letters 1.5–2 cm. in height on the plinth. The essential details of the relief are: the hind legs of a horse galloping to the right; the right foot of the horseman; a dog jumping to the

right behind the horse's legs; and beneath the horse, the figure of a man (whose head is missing) clothed in a short tunic and raising his right arm. The Greek inscription is: Φ(Λάβιος) Δίνις δ καὶ Ἡραῖς (sic) ε[ύχαριστήριον.

Should this relief be included among those designated by the name Thraco-Mithraic, where one sees the figure of a recumbent man under the feet of a horse; or should it be related to the funerary stelae of Noricum, of Dalmatia, of Pannonia, etc., which show a Roman horseman trampling on a fallen enemy? Since we know that the former influenced to some degree the mode of representing the Thracian Horseman, it is possible that the same influence is to be seen in this relief.

It is instructive to consider in this connection the lower fragment of a group of the Thracian Horseman which was found in the sanctuary of this divinity at Diničly. Its essential details are: on the left, a human foot, probably that of the slave who, in numerous Thracian reliefs, follows the horse and holds on to the horse's tail; in relief on the pillar joining the base to the horse's body, the figure of a man kneeling to the right with his hands (probably bound) behind his back; on the right, a wild boar run down by a dog. The inscription on the base is: Θεῶ Απόλλωνι Αύρηλις Μαρκιανός στρατιώτης πραιτωριανός Γεικεθιηνῶ εύχαριστήρια.

This group, just as the aforementioned relief, is obviously intended to represent an enemy beaten down by the Horseman. In the numerous reliefs, however, which are identified as being characteristically Thracian, the Hero Horseman is never shown fighting against men but only against animals. It is probable, therefore, that both the reliefs under discussion reflect the influence of the Thraco-Mithraic reliefs.

Mezek: Thrace.—In *Antiquity* xi, 43, 1937, pp. 300–305, FILOV describes the beehive tombs on this site. The article, apparently a synopsis of a more detailed one which will appear shortly in *Bulletin de l'Institut Archéologique Bulgare*, describes briefly the tombs which are dated in the fourth century B.C. Filov points out that these Thracian tombs obviously are not imitations of contemporary Greek tombs but represent an older native tradition in which there are possibly Mycenaean influences.

YUGOSLAVIA

Neolithic Sites in the Yugoslav Portion of the Lower Danube Valley.—In *Proceedings American*

Philosophical Society lxxviii, 1937, pp. 329 ff., VLADIMIR J. FEWKES deals with the little known south bank of the Danube between the Iron Gate and the river Timok (Yugoslavian-Bulgarian border). Owing to natural erosion the bank is exposed along a more or less vertical section facing the river, and archaeological deposits are thereby brought to view. The publication is based on field investigations during which general reconnaissance was pursued on a score of sites. Among these sites are five extensive settlements, all revealing instructive deposits *in situ*, and containing rich cultural remains. At most of the other sites, which date from the Bronze Age (Vatin) and often also from later times, at least some Neolithic sherds were found on the surface, but no correspondingly datable deposits were seen in the exposed profiles. The question of possible Neolithic occupation in such instances depends on future excavations. The observations thus far made in the Yugoslav portion of the lower Danube valley are suggestive, but only provisionally so, for it would be difficult to draw conclusions until dependable digging justifies them. It is evident, however, that Neolithic occupation, especially in the riparian zone, was centered in large communities, and that controlled economy (agriculture, animal husbandry) under sessile conditions prevailed. The Neolithic material remains comprise varieties characteristic of the western half of the lower Danube valley at large. The most common, and perhaps the oldest, class of ceramics is the barbotine ware, invariably found in stratigraphically lowest deposits. This pottery compares very closely with similar material from Starčevo and Vinča (middle Danube) and from a series of sites in Bulgaria and Roumania (lower Danube).

Owing to the lack of adequate data, a general synthesis of the Neolithic culture history in the lower Danubian valley is not yet attainable; however, certain geographical differentiation is perceptible. The Boian development appears to be localized more or less in the central portion of the valley, namely in Greater Wallachia and in north-central Bulgaria. The cultural expression in the western periphery seems more in line with the Moravo-Danubian area (cf. *A.J.A.* xli, 1937, pp. 329-330) and the Banat, i.e., with the middle Danube valley. It is generally agreed that the Boian manifestations represent an advanced stage of development. Despite certain suggestive leads, however, the question of a genetic relationship between the Boian ceramic style and the barbo-

rine ware of the primary phase, remains open.

The author points out that the Iron Gate appears not to have been penetrated in pre-Roman times. The distribution of Neolithic settlements suggests that the difficult gorge was circumvented by following Danubian tributaries on either side of the river. This seems to be true of other prehistoric periods as well, for there is no positive evidence to show that the Iron Gate accommodated cultural traffic until the time of Trajan's campaigns.

The article is accompanied by an appendix on a microscopic study of samples of barbotine sherds by D. Horton, who shows that the positive appliqué is of the same material as that used in the construction of the vessels themselves. In other words there are no qualitative differences between the body of the wall and the additional coating; this appliqué, then, is not tantamount to a slip.

U.S.S.R.

Recent Archaeological Discoveries Throughout the Soviet Union.—(Notes received in private communications or extracted from Soviet publications in the library of the Field Museum.)

Siberia.—1. A. P. OKLADNIKOV found an Upper Palaeolithic site at Nizhniaia Buret village near Irkutsk on the Angara River. The most important object was a female figurine, similar to those from Malta, carved out of mammoth ivory.

2. B. E. PETRI discovered a Palaeolithic site in the Berezov Mountains at the watershed of the Lena and Angara Rivers. Here on the first terrace of the Kuda River was disclosed a culture attributed to the late Aurignacian or early Solutrian periods. Crude scrapers of convex, concave, straight, triangular, lingulate and carinate forms were found, as well as knife-shaped laminae, nuclei, knives, primitive axes (*Ärmchenbeile*) and drills. During the summer of 1936 Petri found another site near Rogatka on Lake Baikal.

Petri lists the Stone Age periods represented at the following sites of eastern Siberia: Neolithic (1) Upper at Ulan Khada I and II, Koty, Peschannaia, Sukhovskaiia, and Rogatka I. (2) Middle at Ulan Khada IX-III. (3) Lower at Ulan Khada XI-X, Tsar Devitsa II, and Rogatka II and III. Palaeolithic: (1) Upper Magdalenian at Verkholenskaiia Gora, Ushkanka and Bada Selenga. (2) Upper Aurignacian at Bozof, Pereselenchenskii Punkt. (3) Middle Aurignacian at Malta.

In Petri's excavations can be traced the transi-

tion from Palaeolithic to Lower Neolithic deposits where there were neither arrowheads, nor pottery, nor polished implements. In this cultural phase which he calls "Pre-ceramic Neolithic" there were two thousand specimens, many typically Palaeolithic, but the majority were Neolithic and included slate fish-hooks, flint drills, chisels, etc. The most important objects were stone axes. In eastern Siberian Neolithic stations, polished axes and those with lug-like projections are characteristic, but at Rogatka were excavated flaked axes of the latter type in a Lower Palaeolithic deposit. This is the initial stage of the Baikal axes.

3. During 1929 and 1932 S. KISELEV (*Sovetskaiā Arkheologīā*, ii, 1937, pp. 71-94) excavated near the villages of Syda and Tessi several Bronze Age burials on the first terrace above the flood-level attributed to the middle Yenissei culture and belonging to the so-called Afanasiévo type of the third millennium B.C. The tumuli were surrounded by a circle of flag-stones, which Kiselev considers to be a sun-symbol, prototype of cromlechs. From one to eight individuals, each in a flexed position, occurred in the burials. Metal objects were rare. There were some deer antlers, unusual types of pottery, including ovoid and spherical jars, the majority with round bases decorated with a denticulate instrument. Similar burials have been found in the Altai.

EUROPEAN RUSSIA

V. A. GORODTSEV (*Sovetskaiā Arkheologīā*, ii, 1937, p. 150) describes the treasure of Podcherema, located on the Pechora River in the western foothills of the northern Ural Mountains. The jewelry, stored in the Hermitage since 1929, consists of bronze pendants, little bells and small chains. Bronze representations of divinities or of sacred animals, symbolic plaques and pendants in the form of winged discs and of mythical animals may well have served for ritualistic ceremonies. The cult objects are of exceptional interest, since they bear witness to a clear syncretism of local and Persian religious concept. The most interesting of the latter category are the winged discs, sometimes supported by birds, sometimes by grapes. The former antedate the Persian representation of the deified winged sun. The latter, by their affinity with the southern group, indicate the general direction from which these motifs have come, an affinity shared by the effigies of kings, queens, and hereditary princes, figures on

Sasanian coins with the hairdressing in the form of birds and animals. The possessors of the Podcherema treasure were represented with the hair dressed in the same manner as the principal god, the goddess, his wife and divine heir, their son. Gorodtsov dates this treasure at the beginning of the fourth century A.D., which coincides approximately with the reign of the Sasanian king Hormusdas (303-309). The treasury reflects many characters of its masters, who practiced the cultivation of plants, the domestication of animals, various kinds of hunting and primitive industry, in particular metallurgy.

North Caucasus.—B. B. PIOTROVSKI ("Aegyptische Altertümer im nord-kaukasischen Gebiet," *Kruzhok po izucheniiu Drevnego Vostoka pri Gosudarstvennom Ermitazhe*, Sbornik, No. 2 (9), Leningrad, 1935, pp. 35-49) describes Egyptian antiquities in local museums. He states that the majority of the objects, which belong to the beginning of the Christian era, are important for dating the Hellenistic import trade but not as evidence of any direct relationship between Egypt and the Caucasus.

Transcaucasia.—1. S. N. ZAMIATNIN of the Institute of Anthropology and Ethnology (IAE) reports the discovery of about fifty Palaeolithic stations on the Caucasian Coast of the Black Sea. These sites, which are usually connected with early alluvial deposits of the ancient terraces, contain implements of Acheulian, Levalloisian, Mousterian and Upper Palaeolithic types. During 1936 Zamiatnin, who excavated caves near Adler, found an Upper Palaeolithic stratum and three levels of Mousterian hearths in Navalishin cave in the gorge of the Kudepsta River. In a cave near the Mzymta River and opposite Akhshtyr' village two Mousterian horizons were found. The bone deposits in each cave belonged for the most part to *Ursus spelaeus*.

GEORGIA

A. N. KALANDADZE discovered the first Tardenoisian site with typical trapezoidal micro-liths close to Odishi village near Zugdidi.

ENGLAND

Crambeck, Yorkshire.—In *Antiquaries Journal* xvii, 1937, pp. 392-413, PHILIP CORDER and MARGARET BIRLEY report on two fourth-century pottery kilns and the distribution of the ware made here. The kilns are near to and identical with those described in Corder's "Roman Pottery

at Crambeck, Castle Howard, 1928." The article contains a list of type forms that are found at Crambeck, Signal Station, Malton, Langton and Birdoswald. The kilns are dated to the last thirty years of the fourth century, to the time when Count Theodosius re-organized the northern defences of the province.

Malden Castle, Dorset.—In *Antiquaries Journal* xvii, 1937, pp. 261-282, R. F. M. WHEELER reports on the third season's work on this site. The site was occupied from Neolithic times to the reign of Vespasian. After a long break it was again occupied in the fourth century from which century comes much New Forest pottery, a Romano-Celtic temple, priests' house, and a hut.

Worth, Kent.—*Ibid.*, pp. 310-313, W. P. D. STEEBING reports on some pre-Roman, Roman, and post-Roman pottery from this site.

BYZANTINE AND MEDIAEVAL

Seals of the Emperor Leo III.—In *Byzantion* xi, 1936, pp. 469-482, N. LIHAČEV (posthumously) studies seals of the Emperor Leo III, the Isaurian. Among the lead seals of the iconoclastic prince, one of special interest bears the figure of the Virgin and is of the earliest days of the reign, 717-720, before the iconoclastic movement. This Virgin *Hodegetria* is of an extremely interesting type, holding the Savior straight before her in both arms, and presenting him not as a child but as Emmanuel blessing the world. The type seems to have come out of Palestine or Egypt. Similar representations are to be seen in Cyprus in the mosaic of Kition (Church of Panagia Angelokitos), and in the Codex Raboula of 586. In the ninth century the image passed to the seals of the patriarchs of Constantinople. There were three types of seals of Leo III of which the "iconoclastic," presenting the figure only of the sovereign, is the most recent.

Mediaeval Constantinople.—In *Atti della Pontificia Accademia Romana di Archeologia, Rendiconti* xii, 1936, pp. 133-156, SILVIO GIUSEPPE MERCATI, after discussing a number of manuscripts and treatises which describe the sanctuaries (a term that was applied not only to the churches themselves but to the chests and closets in which sacred relics were guarded) and remains of saints which had been brought back to Constantinople from Jerusalem, Asia Minor, the islands and various parts of the Roman empire in order to preserve them from the hands of the infidels, treats of the *Codex Ottobonianus Latinus*

169, which, bound up with other documents, lists and describes the holy relics of Constantinople, extant up to the time of the Latin conquest in 1204 A.D., and records many marvelous miracles wrought by them. He gives the Latin text in full and thinks it was written by some English friar who visited the east in the twelfth century. Among these relics were pieces of the holy cross, the swaddling clothes and other garments of Christ, the crown of thorns, the basin in which Jesus washed the feet of his disciples, the vinegar sponge, the Veronica handkerchief, the garments of the Virgin Mary, the rod of Moses, etc. At the end the churches of Constantinople are catalogued and a short description of Jerusalem is appended.

Mediaeval Sculpture of Campania.—*Ibid.*, pp. 81-104, W. F. VOLBACH treats of the mediaeval sculpture of Campania. The grand epoch of this art did not begin until the second half of the eleventh century, in the time of Desiderio, Abbot of Montecassino, and under the Norman dynasty. Before that time only scant remains of old Christian art are to be found, such as, for example, in the catacombs of Naples, in the church of St. Gennaro *extra moenia*, and on certain Christian sarcophagi. In these we see a decided oriental influence in their vegetal and other ornamentation and in the griffins, monsters and animals represented. This seems to have been exerted chiefly through the importation from Byzantine, Persian and other eastern markets of textiles such as rugs, carpets, tapestries and woven fabrics generally. Under this influence plasticity became flattened out into purely linear ornamentation almost on one plane, probably not at all influenced by Gothic or Lombard art. When in the eleventh century a new awakening came, this was once more due to a strong current of Byzantine culture, brought in by refugees from the iconoclast persecutions under Leo, the Isaurian, and reinforced by Moslem art from Asia Minor, Palestine and Egypt. This stream of influence came into Campania by way of Puglia and Sicily where the Normans had officially adopted Byzantine politics and culture and had greatly encouraged all kinds of importations from Byzantium and the east. Volbach gives many illustrations of Christian works of art from the eleventh and twelfth centuries, including three pictures of Jonah in the mouth of the whale, and several that evidence a renaissance of classical or Roman art.

Praetorium at Jerusalem.—Additional evidence that the Antonia marks the site of the Praetorium

where Jesus was condemned to death is furnished by recent examination of the strange cistern underneath the Basilica of the Ecce Homo. Removal of several layers of water-proof coating from the walls of the cistern disclosed the fact that it was originally a double chambered tomb of the Hasmonean type. The original entrance of the tomb was also found, proving that the great breach in the south wall of each chamber was not a part of the original plan. When the masonry which now fills these breaches was cleared away

and a careful examination of the breaches themselves made, it was seen that they were well-worn entrances which had once been closed by heavy gates. The old Hasmonean tomb had been incorporated into the plan of the Antonia and used as a guard-house at the western entrance. It would be here that the Roman soldiers made sport of Jesus. On the pavement nearby are outlines of games which the soldiers used to play. (PÈRE VINCENT, *Rev. Bib.* xlvi, 1937, pp. 563-570.)

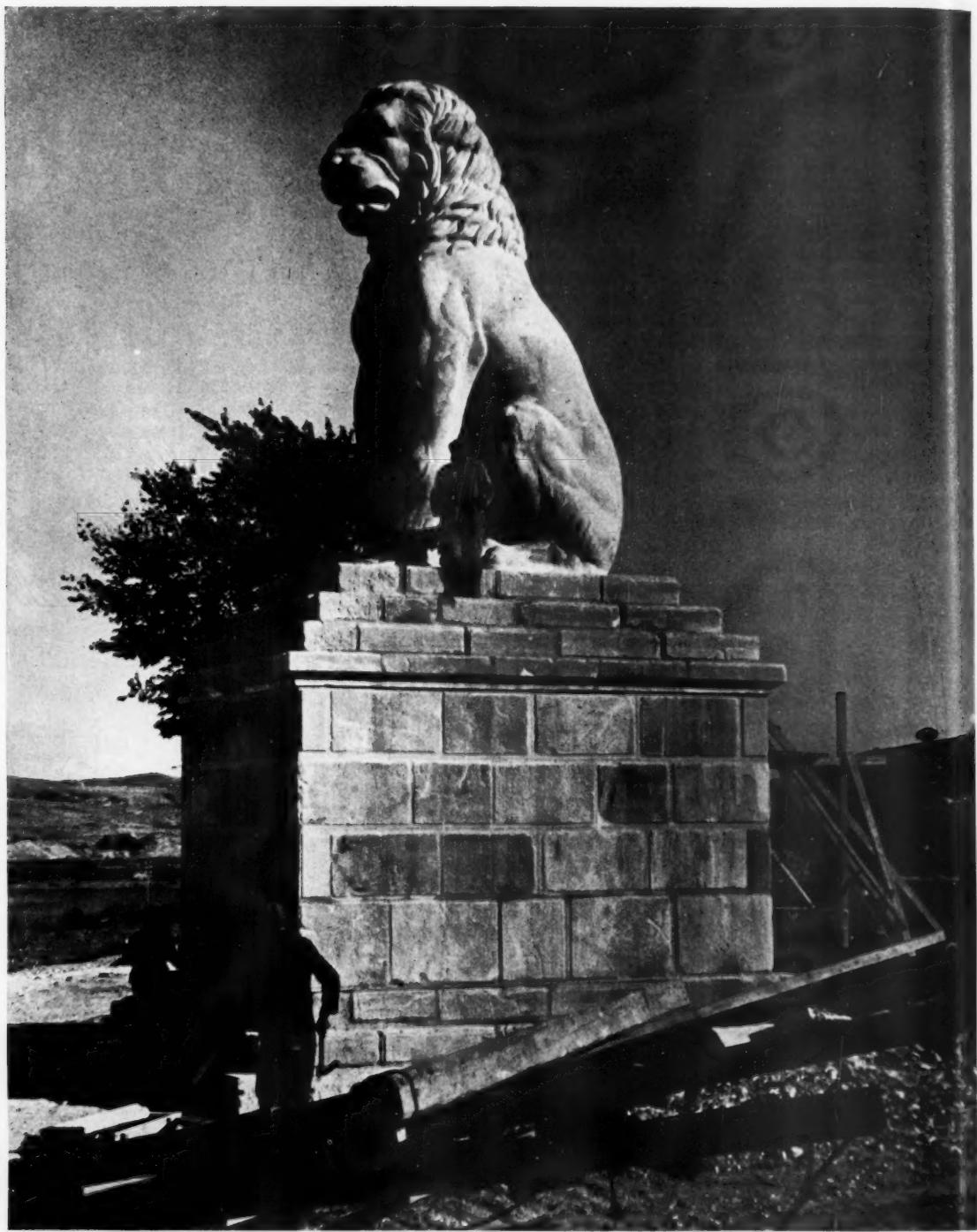


FIG. 1.—THE LION OF AMPHIPOLIS
(Courtesy of the American Minister, Mr. MacVeagh)

NEWS ITEMS FROM ATHENS

The German Archaeological Institute celebrated, on December 9th, their annual observance of Winckelmann's Day, with an Open Meeting devoted to the 1937 excavations at Olympia. The new Director, Dr. Wrede, opened the meeting and introduced the speaker, Mr. Roland Hampe. On the slope of the Hill of Kronos between the Treasuries and the Stadion, the new excavations have uncovered the quarter of the bronze founders. In prehistoric times this had been the bed of a torrent carrying off the water from the hill behind. Later, when the Stadion was built, the ravine was filled with sand and it was chosen as a suitable location for the bronze foundries, the sand being used for making the moulds for the casting of large statues. Several of these installations with their furnaces and moulds have been found, one of them sufficiently well preserved to show the technical processes in use at that time. Many votive offerings from the Heraion were uncovered where they had been discarded to make room for newer ones. A very fine bronze statuette of a runner, poised for the start of a race, should be mentioned, as well as a miniature jumping weight dedicated by a Lacedaemonian victor in the pentathlon, an early Corinthian helmet of the seventh century and many ornaments in thin bronze intended as decorations for the wooden shields of the warriors. These represent heraldic animals, mythological scenes or Victories. These shield devices have been found in other places in Greece as well as at Olympia, but they were so fragile that they had usually crumbled to pieces at the first touch. Now, however, the experts of the German Institute have discovered a process of preserving these thin plates of bronze by the use of melted wax and a backing of light canvas. An archaic female head in terracotta, probably from an akroterion, is considered by Mr. Hampe to have come from the Treasury of Gela, as the only close parallel for the type of face is found on a painted vase from Gela.

During the summer of 1937 there was accomplished the final work of setting up the Lion of Amphipolis.¹ He now stands 5.40 m. high on a modern pedestal which is another 5.00 m. in height (Fig. 1). The excavation of the site has shown that in antiquity the lion was placed in the

centre of a larger monument than it has been possible to reproduce today—obviously a polyandron commemorating some victory which so far it has been impossible to identify or date. On stylistic grounds the lion has been placed about the middle of the fourth century and would thus be somewhat earlier than the Lion of Chaeronea, which was erected after the battle of 338 B.C. The two lions are quite different in type, that of Amphipolis being of a more solid and compact build and giving an impression of greater realism and truth to nature (Figs. 2 and 3).

On December 30th the Academy of Athens held its annual session to consider the work accomplished during the year. The Secretary-General, Mr. Oikonomos, in summing up mentioned the progress made in regard to the excavations at the Academy of Plato, a very important step being the decision of the National Government to recognize the site as an archaeological zone and to make a generous annual contribution to the continuance of the work. The machinery for the evaluation and expropriation of the property has been set in motion and Mr. Aristophron hopes to resume the actual digging in the early summer.

The Society of the Friends of the National Museum held a meeting on the 5th of January in the Mycenaean Room of the Museum in order to present to the Director eight new cases for the better exhibition of individual objects such as the gold cups from the Fourth and Fifth Shaft Graves, and also to present to the collection a gold Mycenaean sword hilt bought from the funds of the Society. The sword hilt is in repoussé work and is similar to two from Shaft Graves IV and V.² After the presentation had been made, Mr. Marinatos, the new Director of the Department of Antiquities, gave a short talk on the evolution of Mycenaean art and its connection with the Minoan. He discussed particularly the art of sword-making, which was more developed at Mycenae than in Crete, owing to the warlike nature of the people, whereas in Crete the only sword which goes back as far as 2100–2000 B.C. is a very elaborate one, which in Mr. Marinatos' opinion was intended for use only on cult occasions by the King. Sword-making did, however,

¹ See Karo, *Die Schachtgräber von Mykenai*, pls. LXXIV and LXXXIII.

² A.J.A. xli, 1937, News Items, p. 333.



FIG. 2.—LION OF AMPHIPOLIS
(Courtesy of the American Minister
Mr. MacVeagh)



FIG. 3.—CHAERONEA LION



FIG. 4.—STATUE OF ATHENA
FROM THE DEMOLITION OF THE
CHURCH OF ST. JOHN'S,
CORINTH
(Courtesy of Mr. Morgan)

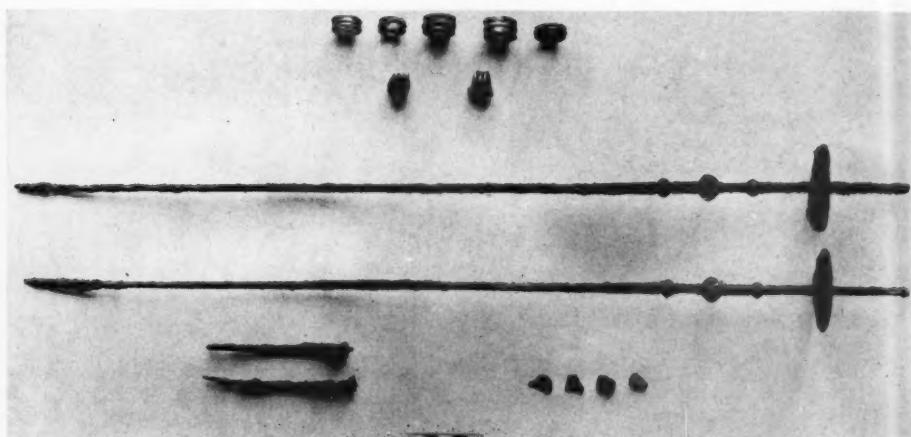


FIG. 5.—CORINTH. CONTENTS OF GRAVE F, AGORA SOUTH CENTER
(Courtesy of Mr. Morgan)



FIG. 7.—AGORA,
CENTRAL AREA. B
MAJOLICA PLATE
(Courtesy of Mr. M)

develop in Crete after 1500 B.C., and to this period those found at Arkalochori may be assigned. The hilt presented to the Museum is considered by Mr. Marinatos to come from the sixteenth century B.C. and obviously belonged to royalty or to a personage of high standing. It also appears probable that the discoverers of the sword hilt must have found it with other objects of equal value, since a royal burial would have had a complete outfit of weapons, vases and articles of personal adornment. No trace of them has so far appeared.

On January 14th the first Open Meeting of the American School was held in the Gennadeion. The Director, Mr. Morgan, described the 1937 excavations at Corinth. The work carried out during the spring months of last year has already been reported in the *News Items*.¹ At that time the life-size statue of Athena was found, during the course of the demolition of the Church of St. John's (Fig. 4) and also the gold rings, earrings and bronze spits (Fig. 5) which came from one of the Geometric Graves in the south central section of the Agora. The starting lines for the fourth century and Hellenistic race tracks (Fig. 6) were also uncovered last spring. The excavations were resumed again on September 13th and continued until the eleventh of December.

"In the north central area of the Agora a narrow strip of land directly north of the Bema was excavated. A considerable extent of the Roman Agora has been laid bare, and numerous architectural members from the Bema and adjacent structures have been recovered. Much of the marble pavement is preserved. When the whole area in front of the Central Shops and the Bema has been cleared, there will be an unobstructed view of the Agora from the Lechaion Road and the Propylaia." In clearing the area to the north of the Bema, a complex of mediaeval buildings was discovered. "This appears to have been a series of shops fronting upon a broad square. Thus we have evidence for the continuation of the Agora site as a civic centre at least as late as the thirteenth century. The earlier walls in the region continue to contain many blocks from the nearby Roman buildings.

"A very thick layer of burned material covered the Roman marble pavement, which is still preserved in places. This layer was filled with small fragments of marble, relating to the West Waiting Room, and among them was part of a Greek inscription. Other pieces of inscriptions have

turned up in this section, the most interesting being the whole left side of a large stele erected in honor of a certain A. Arr(ius), listing his titles, which are numerous: Augur, Priest of Neptune, Duumvir, etc. More interesting are the dedicators, the Hieromnemones, whose title occurs rarely at Corinth.

"The removal of the numerous Byzantine walls in the eastern part of the area produced a quantity of marble step and stylobate blocks from the Bema, many of which will shortly be restored to their original positions. With these was found an interesting fragment of sculpture representing Eros perched upon the left shoulder of a man. Many unusual pieces of Byzantine pottery were also recovered, the most striking of which is a plastic handle from a large cover of tenth-century date, representing a gnome-like man with pointed cap and beard, squatting on the ground.

"A large poros foundation, partly uncovered in the early excavations of the northern part of the agora, was completely cleared. It measures 8.50 metres square, and is built of large rectangular blocks, not very carefully fitted together. Despite the manifest weight of the structure, it consists of a single course of stone, so that the suggestion that it may have supported the great statue of Athena, which Pausanias remarked as standing in the Market Place, seems at present untenable. Investigations to be undertaken in the spring will determine whether solid foundations exist under the central portion. The position of this structure, placed on the axis of the Bema and some seventeen metres north of it, connotes a purpose of some importance. One peculiar feature consists of four post holes, cut in the upper surface of the structure, the two central ones about 1.20 metres apart, and the outer ones separated from the inner by a space of about 1.60 metres. They are located 1.80 metres from the southern edge of the foundation. Just to the east of this we cleared a trench dug during the campaign of 1905 to reveal a small water-channel running east and west.

"The most interesting development in the area was the excavation of one of the large manholes of Peirene, G of the system. The steep staircase cut out of stereo and limestone was preserved at the top and bottom, but had been destroyed in the middle, early in Byzantine times, and its place taken by a well and a square manhole, built up on the sides with many large pieces of the Bema, including parts of the heavy marble stylobate and of the cornice, which has a beauti-

¹ *A.J.A.* xli, 1937, *News Items*, pp. 480-481.



FIG. 6.—AGORA NORTHEAST. FOURTH-CENTURY STARTING LINE SHOWING BENEATH THAT USED FOR THE HELLENISTIC RACE TRACK. NOTE THE FORWARD CUTTINGS FOR THE HANDS OF THE CROUCHING RUNNERS

(Courtesy of Mr. Morgan)



FIG. 8.—TYPICAL SECTION OF COMPARTMENT WALL ON HILL OF MUSES, 307 B.C.
(Courtesy of Mr. Thompson and Mr. Scranton)

fully carved egg-and-dart moulding based upon models of the fifth century. Some inscribed fragments were found, the most interesting of these being a base erected in honor of a certain Gaius Heius Aristos, by decree of the local senate. His titles include that of Duumvir, thus adding his name to the list of these magistrates, and pointing again to the prominence of this family, two other members of which held the same title about the time of Augustus. Two fine pieces of sculpture were also found here, a delicately modelled head of a woman in relief, about two-thirds life-size, and a large fragment of a statue base, the estimated diameter of which is about a metre. Above a low torus moulding are carved confused groups of the spoils of war, shields, cuirasses, and greaves. On one of these heaps a woman is sitting in a dejected attitude.

"A section across the west end of the South Stoa ca. 15 metres wide, including three shops and three storerooms, has been cleared this season. A late Roman bath with well preserved hypocausts occupies the southernmost part of this area. Two of the rooms with hypocausts have apsidal ends on the south side. To the west of the baths the original Greek shops are better preserved. The partition wall between storerooms XXVII and XXVIII is standing to a height of over two and a half metres. It seems likely that this portion of the Stoa continued to be devoted to its original use throughout the classical period, whereas most of the shops farther east were demolished in Roman times to make room for various administrative buildings.

"Several pieces of inscriptions have been discovered, including a fragment which seems to date from the early second century B.C. It has to do with some regulations governing the activities of certain artisans. The most important piece of sculpture is a statuette of Pan seated on a rock. It is entirely preserved with the exception of the two hands by which he held the pipes to his mouth. The marble is broken at the beard in such a way as to indicate that the god was represented in the act of playing the pipes.

"Two large Byzantine tombs were discovered in this section. Both contained a number of skeletons, and one had bronze and silver jewelry, glass beads, and a considerable amount of cloth preserved on the bodies. Another large tomb of earlier date was the grave of five Avar soldiers. Each wore a buckle, two had knives at their waists, and many iron weapons were lying about

them. A deposit of unusually fine Roman pottery and glass of the first century A.D. was discovered in a drain in the southern part of the area."

In the south central region of the Agora the clearing was continued down to the level of the fourth-century Greek cobblestone pavements. "A large stretch of this pavement about in the centre of the southern half of the Agora has been exposed. The removal of mediaeval walls produced numerous blocks from the South Stoa, including many pieces of the large gutter which ran along in front of the stereobate. An interesting find is a large broken block of marble, which seems to be the lower part of one of the curious supports associated with the Bema, representing gigantic figures in relief against a half acanthus column. Though badly damaged, the heel of the giant and a good section of the acanthus decoration may be distinguished.

"Abundant fragmentary mediaeval pottery of all periods from the tenth to the thirteenth century was found. This includes the larger part of an incised plate of the early thirteenth century with a lion crushing a deer, a deposit of unusual pieces of Proto-Majolica (Fig. 7, p. 152) and a *sgraffito* sherd bearing a fragmentary inscription in several lines. A well is producing fragments of Green-and-Brown Painted vessels, with a few coins.

"Coins from this area are not so numerous as from the Agora north-central section, but a 'pocket' of 86 coins dating apparently from the tenth century is of interest. Over part of the area a thick deposit of ash filled with glass fragments, dating probably from the thirteenth century, is of considerable importance, for it indicates the existence of a glass factory not far from one found last spring in the Agora Northeast area, of about the same date. A very fine glass bottle, nearly complete, with enamelled designs representing birds, was found near this deposit. Among the small finds was a remarkably fine carnelian gem, representing a nude warrior seated before a statue of Athena. It dates from the early Roman period and is of exquisite workmanship.

"The large manhole leading into a cross branch of the Peirene system was dug almost to the floor of the channel. It is of great size, measuring four metres in length by one in breadth, with a short passage connecting with a well at a high level, and a second spur about half way down, which runs southward for a very short distance and then stops. All the fill was mediaeval, apparently of tenth-century date, and contained several

complete specimens of impressed pottery in the shape of 'fruit stands,' with a broad, rather flat upper surface, and a high moulded foot.

"A considerable section of the south wall of the Central Shops was uncovered near the northern limit of the area. While the final clearing of the chambers must wait until the spring campaign, it is now apparent that the western shops of this series extended 1.70 metres farther south than those to the east, a difference which did not affect their external appearance, nor destroy the regularity of their façades.

"During the process of constructing a distillery opposite the railway station at Hexamilia, workmen discovered the presence of a small Roman chamber tomb. Under the supervision of Dr. G. R. Davidson, this was cleared with the most interesting results. The vaulted concrete roof had collapsed, but the rest of the tomb, of rectangular plan, was in good condition. Eleven arched niches occupied the walls, and bedded in the floor of each was a cylindrical urn for the ashes of the dead, covered with a convex lid. A stone sarcophagus was placed on the earthen floor at the northwest corner, extending to the east. The walls were neatly built of small stones and mortar, and the doorway was in the south wall. The tomb, built in the late first century A.D., was robbed in the fourth century. The ashes and bones of the dead, as well as several lamps and figurines which had been placed there, had been thrown in confusion about the chamber. The Greek government is taking measures to restore this tomb and make it accessible to visitors."¹

The investigation of the city walls on the Pnyx hills "conducted by the Department of Antiquities of the Greek Government and by the American School of Classical Studies in coöperation, has practically completed the exploration of that section of the defences of Athens which lies on the crest of the Pnyx range between the Hill of the Nymphs and the Hill of the Muses, a length of ca. 1 kilometre. This ridge would seem to have been first fortified as a second, inner line of defence within the old Themistoclean enceinte toward the end of the fourth century B.C. Of this earliest fortification, the curtain wall has been traced throughout its length, at least four of its towers have been found, an elaborate gateway has been explored and a large building that would seem to form an integral part of the system has

¹ For this report and its illustrations I am indebted to Mr. Morgan.

been discovered on top of the central Pnyx Hill. Subsequently, perhaps in the second half of the third century B.C., after the abandonment of the Long Walls, this 'cross wall' apparently became the city's one and only line of defence toward the south. Along the great part of the central Pnyx Hill the line of the wall was at this time moved to a stronger position farther out on the shoulder of the ridge. Certain alterations at other points of the original system are also to be assigned to this period. The exploration of the present season has produced evidence of damage to parts of the defences in the first century A.D., and of its repair probably in the following century. In very late Roman times this whole line of fortifications was thoroughly reconditioned and strengthened, and, finally, some minor adjustments are to be dated as late as the twelfth century.

"The earliest line of wall with which we are here concerned left the Themistoclean enceinte at a point to the northwest of the Hill of the Nymphs, made its way up and over that steep hill, thence followed the ridge of the central Pnyx Hill, passing above the Assembly Place, and so continued up the Hill of the Muses, on the top of which it rejoined the earlier circuit wall. The construction of this wall involved the demolition of numerous private houses along its path. The curtain wall as preserved consists of a socle ca. 2.70 m. wide of large blocks laid along the inner and outer face so as to confine a core of broken stone and clay. In most places the interior of the wall is divided into compartments by cross-blocks laid as headers at intervals of two stretchers (Fig. 8, p. 154). At one point cross-walls were found built of small stones laid dry. The socle varied in height according to the configuration of the rugged terrain, showing in the parts explored 1 to 4 courses. The stone employed was a hard conglomerate, freely supplemented by re-used building blocks of all sorts. At one point on the north slope of the Hill of the Muses the socle is still capped with sun-dried brick, and, since this section appears to be part of the original construction, we may assume that the upper part of the wall throughout its length was built of that material. The towers were widely spaced and varied greatly in size and plan. Their arrangement may best be studied on the north slope of the Hill of the Muses, which was covered by two rectangular and one curvilinear tower between the gate at its foot and another hypothetical rectangular tower on its summit. In their lower parts the towers were built like the curtain,

i.e. they consist of a facing of conglomerate blocks with an interior packing of small or broken stone. The gate towers, perhaps all the towers, were carried up to their full height in stone rather than brick.

"Our line of wall was probably broken by two main gateways, one between the central Pnyx Hill and the Hill of the Nymphs, the other between the central hill and the Hill of the Muses, i.e. on the line of the ancient 'Road through Koile.' The study of the former has been rendered difficult, or indeed impossible by extensive quarrying operations of later times and by the presence of the Observatory Garden. Of the other gate complex one half lies beneath a modern public road, and one half beneath the Church of St. Demetrios. The part beneath the roadway has been explored and on the basis of it the scheme of the whole may be restored with reasonable assurance. We have to do with a double gateway or *dipylon*, defended primarily by two square towers (ca. 8.00 m. to the side) lying in the line of the wall on either side of the roadway. From the mid-points of their inner faces spur walls extend cityward and then return toward one another at right angles to form a court and an inner point of closure. In the original scheme probably only the city side of the court was closed by an actual gate.

"The explorations of this season established the plan of a hitherto unsuspected large rectangular enclosure, that with a width of ca. 19.50 m. and length of ca. 150 m. covers much of the top of the central Pnyx Hill toward its western end, and appears to form a part of these earlier fortifications. There remain the beddings for the outer walls, painstakingly cut in the bedrock, and a few of the large conglomerate blocks of its lowest foundation course. Though the western end of the structure was completely cleared over its full width for a length of over 12.00 m., no trace of interior walls or columns came to light. This suggests that the interior divisions, if any, must have been effected by some unsubstantial construction, e.g. brick walls on light stone socles. The building may have served as a barracks or a military arsenal.

"Quantities of pottery found in the core of the wall and towers at various points and in significant places along the foundations of the great rectangular building suggest for their construction a date around the end of the fourth century B.C. We may with much plausibility associate this activity with the extensive program for the rehabilitation of the defences of Athens, the

Peiraeus and the Long Walls initiated by Habron in 307/06 B.C.¹

"Part of this new wall was utilized by Demetrios Poliorketes in 294 B.C., when he fortified the Hill of the Muses for the reception of his Macedonian garrison after subduing Athens. By carrying a short line of wall below the crest of the hill on its city side, joining it at either end to the already existing wall, he formed a keep on the top of the hill. The position, naturally strong by reason of the steep and in places precipitous slope of the hill, was further strengthened by the construction of three rectangular towers on the newly built cross wall: one at either end where it left the earlier walls and one in the middle, menacing the Acropolis. This middle tower had already been discovered and identified by Skias at the end of the last century, but the remainder of the fort had still to be explored. Much of the lower part of the great central tower remains (Fig. 9); elsewhere the dressed beddings and an occasional conglomerate block indicate the plan of wall and towers. In material and construction this Macedonian work resembles closely the earlier wall described above, but its workmanship is rather more careful.

"Now that we have come to know the strength of this fortress we can thoroughly appreciate the triumph of the Athenians when they succeeded in capturing it in 286 B.C. We can understand too why it should have been chosen again by the Macedonians as the seat of another garrison force installed later in the same century and why, after their speedy expulsion, it should have been included among the forts garrisoned by the Athenian ephebes.

"In 1936 there was discovered on top of the central Pnyx Hill a line of wall distinguished by the soft white poros of which it was entirely constructed. The excavations of the present year have established the course and all the essential features of this fortification. It is, as previously conjectured, a replacement of the earlier wall over almost the entire length of the central hill. The first wall had been kept close to the very crest of the hill, largely, it would seem, in order to include in its course the great rectangular building that had of necessity to be placed on the comparatively level top of the ridge. A steeper approach from the land side and so a stronger position was

¹ "It will be recalled that the building specifications published that year have survived in large part in *I.G. II²*, 463, now supplemented by a stone from the Agora Excavation."



FIG. 9.—PNYX. ROUND TOWER OF WHITE POROS WALL



FIG. 10.—CENTRAL TOWER OF MACEDONIAN FORT ON HILL OF MUSES
(Courtesy of Mr. Thompson and Mr. Scranton)

now gained by setting the new line of wall farther out on the brow of the hill, ca. 10.00 m. beyond the old. The new wall was pierced near its middle by a narrow gateway that was flanked on either side by a massive buttress projecting cityward. The positions and dimensions of six rectangular and one curvilinear tower have been fixed along the face of the wall. This last tower has straight sides and curving front, a massive outer wall and a core built up largely of construction débris. It has now been completely cleared and takes its place among the most imposing remains of the city's fortifications (Fig. 10). Of the rectangular towers one shows massive stonework, at least in its lower part; the others were built with heavy stone walls around cores of working chips and earth. The curtain varies in thickness from 1.30 to 2.00 m. and in all parts shows a massive foundation of large poros blocks. The thinness of the wall and the presence along it of enormous masses of working chips suggest that it was built to its full height of stone. At intervals of 4.00 to 5.00 m. the curtain was reinforced by stone buttresses ca. 1.30 m. square set against its inner face. Behind the towers these buttresses were doubled or tripled in length.

"We may perhaps associate with this building program an alteration in the gateway on the road through Koile. A large buttress was set against that corner of the explored gate tower which looked into the court, a similar buttress was presumably set against the corresponding corner of the neighboring tower, and a great gate was swung between them. White poros used in the construction of the buttress is identical with that found elsewhere in this wall and a cornice block re-used in the buttress may derive from the earlier wall.

"On the very top of the Hill of the Muses a rectangular tower has been exposed which again exhibits the characteristic material and workmanship of the white poros wall. It is significant that the face of this tower cuts across the line of the Themistoclean wall, but shows no trace of a junction with it. The older wall would seem no longer to have been in use at this time.

"A limited amount of pottery found among and below the construction débris of the white poros wall suggests for it a date in the latter part of the third century B.C. It is tempting, therefore, to connect this extensive and costly piece of work with the program of repairs initiated and largely financed by Mikion and Eurykleides, and recorded

on extant inscriptions.¹ Various indications had already suggested to scholars that the Long Walls had been abandoned by this time. From the disposition of the newly found tower of white poros on top of the Hill of the Muses we may infer further that the Themistoclean enceinte was now abandoned in its course across the south side of the city, that the newly repaired wall on the Pnyx Hills was henceforth to serve as the sole line of defence in that region and that consequently a very considerable area on the southern slopes of those hills which had previously been densely inhabited, as shown by the traces of houses, was now left outside the walls. The ensuing depopulation of this area is attested by the numerous burials which were now made on either side of the ancient road in its course between the two lines of wall. The tombstones and offerings removed from these graves in recent years appear to date exclusively from the later Hellenistic and Roman periods.

"The gateway on the Road through Koile was damaged early in the first century A.D. The iron sheath that had covered the pivot of the gate was found in its socket in the threshold and a dozen of the great iron studs from the wooden door lay twisted and rusted where the door had fallen. This wreckage had been speedily buried by the gathering gravel, the potsherds from which revealed the date. An exploratory trench cut across the line of the wall a few metres to the north of the gateway showed that an enormous mass of earth had been heaped against the outer face of the wall. At this point it still lies over 5.00 m. deep. This activity also occurred in the first half of the first century A.D. It is tempting and perhaps justifiable to connect the building of the mound and the damage to the gate and to attribute both to some violent assault otherwise unrecorded.

"Before long the damage was made good. The great gateway was repaired and rearranged. The outer entrance way was narrowed and a new threshold was laid in it. This repair is probably contemporary with a rearrangement of the wall on top of the central Pnyx Hill. A considerable length of the white poros wall was abandoned and the line was once more drawn back to the crest of the hill. Pottery found in association with the repair in the gateway and with the new wall on the hilltop suggests for this activity a date well on in the second century A.D.

"In late Roman times the fortifications on the

¹ *I.G. II^a*, 791, 834.

Pnyx Hills were neglected and fell into disrepair. The angles between towers and curtains were used as burial places, and in more than one spot entire family burial plots were unearthed: the tile-covered graves of adults and children lying side by side, and those of successive generations one above the other. The coins and offerings found in the tombs date from the fourth and fifth centuries A.D. Soon after the making of these latest burials, a thoroughgoing reconditioning of the entire system of fortifications took place. The line as established in the second century A.D. was followed. Parts of the old wall that still stood were repaired with mortar. In many places the curtain had to be rebuilt from the bottom up; here the old blocks were re-used and were supplemented with rubble masonry. All the old towers would seem to have been rehabilitated, sometimes with considerable modifications. The curvilinear towers, for instance, both that of the earliest wall and that of the white poros period, were now squared. Many new towers were added; on the wall that runs up the north slope of the Hill of the Muses, one new tower was set midway between each pair of old rebuilt towers. These new towers are comparatively small, measuring on the average ca. 5.00 x 6.00 m., and they are slight in construction, being closed on their three exposed sides with walls only 1.00 m. thick. The old gateway on the road through Koile was repaired and was kept in use.

"The evidence of the burials noted above, combined with that of pottery found in association with the reconstruction, suggests for the work

a date in the sixth century A.D. We are probably justified, therefore, in ascribing the activity to Justinian, who, according to Procopius, rebuilt the walls of Athens. This new knowledge sheds welcome light on the extent and the disposition of the city in this period.

"The gateway on the road through Koile was altered once more at a much later date. The northeast corner of the south gate tower was reinforced with a buttress of rubble stonework; the great marble threshold between the two gate towers was reset at a higher level and the roadway where it passed between the towers was raised in level. The pottery found in association with these alterations is of the eleventh and twelfth centuries A.D. The work was probably done in the latter century. No other work on the fortifications of the Pnyx is certainly attributable to this period. On the other hand, it is not likely that a single gateway should have been repaired or that it alone should have been in use at any period. The Agora Excavations of the past season have exposed a length of fortification wall on the northwest shoulder of the Acropolis that is probably to be assigned to the twelfth century. The same danger may have evoked these contemporary activities on Acropolis and Pnyx.

"The excavations of the past two seasons have thus fixed in all essential details the scheme and history of the fortifications on the Pnyx Hills."¹

ELIZABETH PIERCE BLEGEN

¹ For this report I am indebted to Mr. Homer Thompson and Mr. Robert Scranton.

RECENT DISCOVERIES ON THE NORTH SLOPE OF THE ACROPOLIS IN ATHENS

PLATE XVI

IN THE Spring and Summer of 1937 an area covering approximately 1,500 square meters was excavated on the Acropolis slope, directly south of the Old Kapodistrian University Building. Although no monuments of ancient date were discovered in this area, much archaeological material was brought to light, some of which is of unusual interest and importance. Approximately 130 fragments of inscriptions were found, one of which is from the stele recording the erection of the Athena Promachos statue, another belongs to the Erechtheion building accounts, and several are inventory records from the late fifth and the fourth centuries. The sculptural finds include some important fragments of archaic statues, a large piece from a metope of the Parthenon, and several relief fragments from Attic decrees.

Most of these objects come from the late fill covering the area and from walls and foundations of mediaeval and modern houses. But the most important result of the campaign was the discovery of two wells filled up in the sixth and fifth centuries B.C. respectively. In the earlier of these, near the top, was found the bronze horse and rider shown in Pl. XVI A. The rider, whose disproportionately long legs seem to grip the horse's chest, resembles the mounted marble figure in oriental costume from the Acropolis,¹ but the horse has certain archaic features, which would tend to show that the bronze should be dated at a somewhat earlier period than the marble statue, probably as early as the middle of the sixth century. An unfinished inscription of three letters HIE(PON) was probably intended to record the dedication of the figure to some deity, perhaps Athena herself, or, possibly, the Dioskouroi, whose shrine was located on the north slope of the Acropolis.

At the bottom of the well which produced the bronze horse and rider, were discovered the fragments of a black-figured calyx-crater Pl. XVI B. About one-third of the vase is missing. On one side is depicted a procession of deities accompanying Herakles at his introduction into Olympos, and on the other side is the scene of six warriors fighting over the body of Patroklos. In the lower zone on either side is the figure of a bull attacked by two lions. The decorations over the handles consist of seated female figures beneath spreading vines, and small running satyrs fill the space below the handles. The names of the deities and of the warriors are inscribed with painted letters, and over the horses appears the inscription ONETOPIΔE[Σ] KAΛΟΣ. We may with confidence assume that this inscription was balanced by the artist's signature on the other side, where the upper part of the scene is missing. The style of decoration shows clearly that the crater was painted—probably also made—by Exekias, and the kalos-name Onetorides, which occurs on three of the signed amphoras of Exekias, offers further proof. The crater is important not only because of its own intrinsic beauty, but also because it is the earliest known example of this vase-shape.

¹ Acropolis No. 606; Payne and Young, *Archaic Marble Sculpture from the Acropolis*, pp. 6 ff. and 52.



FIG. 1.—LOUTROPHOROS
HYDRIA FROM FILL OF ROCK-
CUT DEPRESSION



FIG. 3.—STANDARD OF MEASURE

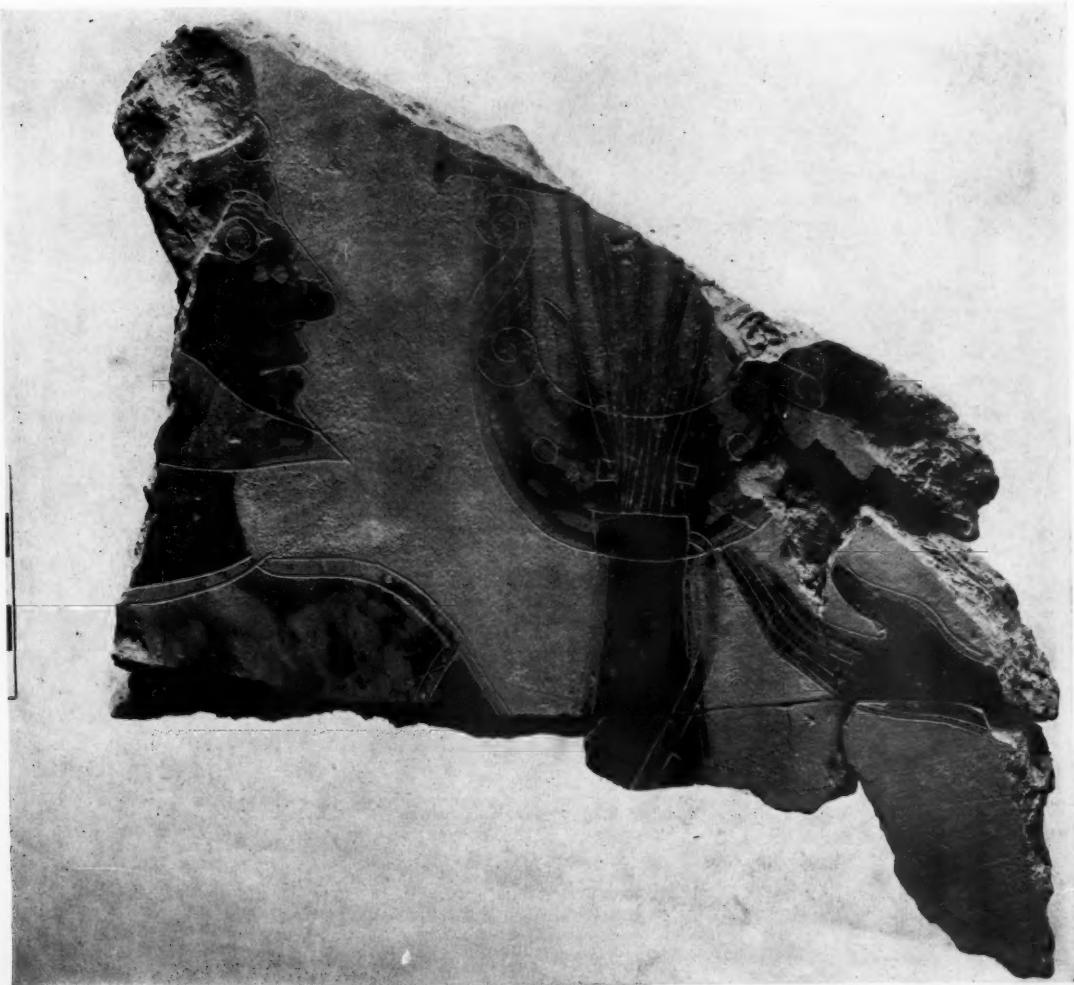


FIG. 2.—FRAGMENT OF PAINTED PINAX

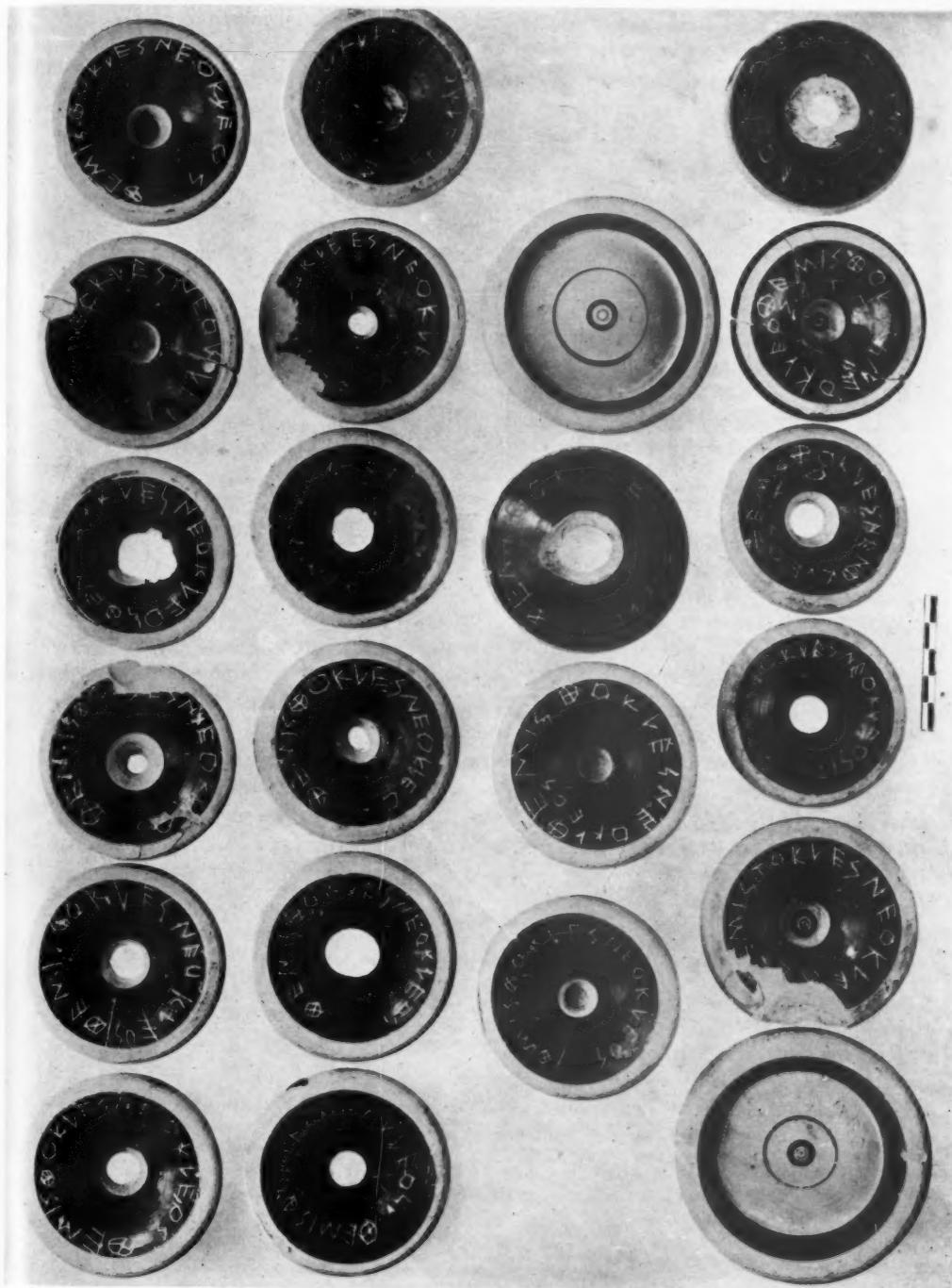


FIG. 4.—OSTRAKA OF THEMISTOKLES FROM THE FILL OF AN ANCIENT WELL

Another black-figured vase, a loutrophoros-hydria (Fig. 1), in excellent state of preservation, was discovered in a deep cutting not far from the well. On the tall neck and on the body of the vase are female figures holding wreaths and beneath the horizontal handles are figures of leopards.

The second well, which seems to have been filled up at different times in the fifth century B.C., contained numerous bronze and iron objects, terracotta figurines and pieces of marble sculpture. The fragment of a painted pinax, shown in Figure 2, came from near the top of the fill. It represents a bearded figure holding a lyre, which he either receives from or gives to another figure. On stylistic grounds this plaque may be dated in the last quarter of the seventh century. Its resemblance to the metopes from Thermon, especially the one representing a bearded hunter, is especially striking.

At a depth of 4 m. in the same well were discovered the fragments of a terracotta vessel (Fig. 3), inscribed with the word $\Delta\text{EMO}\xi\text{ION}$ in painted letters of the fifth century B.C., and bearing the official seal of the city in the form of a small owl. At the top a triple bar is fastened in the sides of the vessel. The shape of the vase, the stamp, and the inscription, show that this is one of the public standards of measure, kept by the state for the purpose of exercising control over the merchants of the city. It has a cubic content of ca. 3,200 c.l., which may be the equivalent of three Attic $\chi\text{oivukes}$.

The most surprising result of the excavation was the discovery of 190 ostraka inscribed with the name of Themistokles, son of Neokles (Fig. 4). Most of these are cylix bases, broken off at the stem and inscribed in fine, carefully written letters. A few sherds of various shapes, and some small bowls, very lightly fired, are similarly inscribed. In some cases the word !TO , "be gone!" was added after the name.

It has been possible to divide these ostraka according to the letter forms, showing that several pieces were inscribed by one hand. Inasmuch as the ostraka were found far from the Agora, where the ostracisms took place, and furthermore cannot have been written by the voters themselves, it is highly probable that they were prepared by the political opponents of Themistokles for free distribution in order to induce the public to cast their votes for the banishment of the progressive and popular leader.

OSCAR BRONEER

CAMBRIDGE, MASSACHUSETTS
Jan. 3, 1938

ARCHAEOLOGICAL EXPLORATION AND EXCAVATION IN PALESTINE, TRANSJORDAN, AND SYRIA DURING 1937*

Archaeological discoveries in Palestine during the year under review have been rich beyond all expectation, not only in intrinsic value but particularly in historical importance. Serious political disturbances in Palestine have limited the number of archaeological undertakings, but in general

have in no wise hampered the work of those in progress. Transjordan is a land of great promise for excavations. Syria continues to produce sensational results in the comparatively few sites which are being dug there.

PALESTINE: PREHISTORIC AND EARLY HISTORIC ARCHAEOLOGY

The growing importance of Palestine as a center of prehistoric study, demonstrated so vividly by Miss Dorothy Garrod's and Mr. T. McCown's excavations in the caves of Wadi Mughárah, at the foot of the western slope of Mt. Carmel, twelve miles south of Haifa,¹ is emphasized by the finds of the bone-bearing beds of Bethlehem.² As the result of the discovery of elephant remains in a deposit at Bethlehem, excavations were commenced there in the spring of 1935 by the Geological Section of the Wellcome Archaeological Research Expedition to the Near East under the direction of Miss E. W. Gardner as geologist and Miss D. M. A. Bate as palaeontologist. The work was continued in 1936 and 1937. The Bethlehem bone beds were first found by the owner of a garden on the highest point in Bethlehem, 790 m. above sea-level. On all sides the ground falls away, on the east towards the Dead Sea, on the west towards the Mediterranean. The solution of the problem of the origin of the deposit isolated on the highest point of the Judaean arch will throw light on the past physiography of the region and its relation with the Dead Sea Rift and Transjordan.

The bones were found in water-borne gravel, deposited on a cemented scree, or breccia, weathered subaerially. The lie of the deposits is such, that it is evident they cannot have been laid down originally in the position in which they are now found. Miss Gardner suggests that the condition of the deposits may be due either to the collapse of the original floor or to the filling of a funnel-shaped hole. The present position of the deposits indicates wide physiographic changes, which in their turn point to a great age.

¹ *A.J.A.* xxxvi, 1932, pp. 160-161.

² E. W. Gardner, and D. M. A. Bate, "The Bone Bearing Beds of Bethlehem: Their Fauna and Industry," in *Nature* 140, Sept. 4, 1937, p. 431; cf. also p. 381.

Miss G. Caton-Thompson has found in the vast multiform assemblage of cherts in the gravels a number of pieces which she holds it difficult to explain except as humanly fashioned tools. She regards many of the Bethlehem "artifacts" as conforming closely "in shape and edge trimming to the classic type of Harrisonian eolith." She points out that this is the first time such evidence has been found in a sealed deposit in Palestine, and "is less easy reasonably to explain as the accidental work of natural forces, than as the deliberate experimental work of man in remote pre-Chellean times." This archaeological evidence is thus possibly the earliest indication of man's appearance in Palestine.

According to Miss Bate, with the possible exception of a single specimen, the Bethlehem de-

*The writer wishes to thank Mr. W. A. Heurtley, editor of the *Quarterly of the Department of Antiquities in Palestine*, for his courtesy in placing the proof-sheets of the forthcoming report on Palestine archaeological undertakings at his disposal. It is a pleasure to express thanks to the following scholars, who have most kindly furnished the writer with brief reports on the excavations under their direct charge or general supervision: Mr. R. W. Hamilton, Sir Flinders Petrie, Prof. L. Picard, Mr. G. Loud, Mr. P. L. O. Guy, Dr. E. L. Sukenik, Père R. de Vaux, Fr. Sylvester Saller, O.F.M., Mr. J. Waechter, Mr. Frank E. Brown, M. Daniel Schlumberger, M. Claude F. A. Schaeffer, M. Maurice Dunand, Prof. H. Ingholt, M. André Parrot and Dr. C. W. McEwan. To Mr. R. W. Hamilton, Acting Director of the Department of Antiquities, Mr. H. J. Iliffe, Curator of the Palestine Archaeological Museum, M. Henri Seyrig, Director of the Service des Antiquités, Beirut, and to M. Daniel Schlumberger, of the Service des Antiquités, Beirut, the writer is indebted for furnishing or giving access to information.

positis have yielded mammalian fauna of earlier geological age than any so far known from Palestine. Animal remains revealed the presence of: *Felis* sp. (size of *Panthera leo*); *Hippopotamus* sp.; *Bos* sp.; Antelope; Giraffoid; *Hipparrison* sp.; *Rhinocerus* cf. *etruscus*; *Stegodon* sp.; *Elephas* sp.; *Testudo* sp. (of gigantic size); *Testudo* sp. (of very small size). Of special interest is the discovery of *Hipparrison*, the diminutive form of the horse, previously known from various deposits in Asia of Tertiary age, but recently reported from the Pleistocene of India, and now well known from the Pleistocene deposits of East Africa. Miss Bate suggests that the Bethlehem fauna is Asiatic in origin, not later than early Pleistocene in age, and provides a faunistic link for this period between Asia and East Africa.¹

Excavations undertaken in 1936-7 by the Hebrew University, under the direction of Dr. M. Stekelis and Prof. L. Picard, with the collaboration of Miss D. M. A. Bate and the assistance of Mr. P. Solomonica and Miss E. Rosenau, close by the Jisr Banāt Ya'qūb² near Lake Hūleh, have also yielded implements and fauna of much importance for the chronology of Pleistocene and its relationship to the palaeolithic culture of Palestine. In 1936 soundings were undertaken below the old bridge and in the river bed itself. Three layers were distinguished. The first one in the river bed itself yielded fragments of elephant bones; there were also hand axes of basalt of a lower Acheulean or upper Abbevillian type. The second layer of dark gray clay contained a fauna of shells, which in addition to characteristic forms known from Lake Tiberias and Lake Hūleh included the genus *Vivipara*. Fragments of tusks, molars and bones of cervidae and equidae were also found, together with flint hand axes and flakes of upper Acheulean type. The third layer, immediately above the second, contained some flints of Levallois-Mousterian type, mixed with those of the upper Palaeolithic. The elephant remains have been provisionally identified as belonging to *Elephas Trogontherii* Pohlig, which is regarded as a distinct Pleistocene fossil. The March 1937 soundings yielded additional bone and flint materials. In particular, there may be mentioned a large elephant's tusk which is two metres long. The elephant remains and the older types of implements which were found together belong to the older Pleistocene.

¹ Cf. Picard, *Proc. Preh. Soc.* (hereafter, *P.P.S.*), Jan.-July, 1937, p. 67. ² *Q.D.A.P.*

Prof. Picard³ feels that the fauna of the Pleistocene inland-water in Palestine "points to persistence of conditions from the Pliocene period and to a climate not differing very much from that of the present day (or, if anything, rather more temperate)."

The fifth campaign at Tell ed-Duweir,⁴ ancient Lachish, was again directed by Mr. J. L. Starkey on behalf of the Wellcome Marston Archaeological Research Expedition to the Near East. Beginning November 1, 1936, it lasted as usual for six months. At first, attention was devoted to an area below the northeast corner of the mound, where the line of the Hyksos moat had not yet been traced. The rock was found to be pitted with quarries and tombs up to the level of the Hyksos fosse, which, however, was not located in this area. Some of the tombs had been robbed anciently, and others had been cut into by quarrying, while several tombs had been reused in late times for domestic purposes. The largest tomb consisted of three rock-cut chambers, which contained interments varying from late Hyksos to early Ramesside times, 1600-1250 B.C. Despite ancient plundering, 192 scarabs and seals were found, several of them engraved with the names of XVIIIth dynasty kings, besides two of the Hyksos ruler Pepa or Shesha. Adjoining burials yielded scarabs of the Pharaohs Ay and Horemheb. Indications from these tombs tend to reinforce evidence from the *tell* and from the XVIIIth-XIXth dynasty temple area that unbroken prosperity at Lachish lasted well into the Ramesside era.

A surface find of a banded quartz seal from this region contains the owner's name and reads: "belonging to Shefatyāhū 'Asyāhū."⁵ The inscription is placed under the Egyptian symbols of the winged serpent and the *ankh* sign and probably belongs to the late Judaean period.

One of the most important discoveries during the last season was made not at Tell ed-Duweir, but in the laboratory of the Palestine Museum, Jerusalem, where the blade of a copper dagger which had been found at Tell ed-Duweir in 1934 was being chemically treated. There were four signs on the blade of this dagger, which was found

³ Picard, "Inferences on the Problem of the Pleistocene Climate of Palestine and Syria," in *P.P.S.*, Jan.-July, 1937, p. 60.

⁴ *Q.D.A.P.*; *I.L.N.*, Nov. 27, 1937, pp. 944-6, 968; *Antiquity*, Sept., 1937, pp. 359-60; *P.E.Q.*, Oct., 1937, pp. 228-41. ⁵ Cf. *I Chron.* 15, 18.20.

among a group of objects associated with an intact burial of the Hyksos period and cannot be later than 1600 B.C. The writing has affinities with the script found at Serabit el-Khadim in Sinai.¹

The use of cursive hieroglyphic script at Lachish is illustrated by fragments of three locally made pottery bowls. Written spirally, both inside and out, were faint Egyptian ink hieratic inscriptions on the fragments, one bowl recording the receipt of grain. The entries are dated by the Egyptian calendar, and the amounts are recorded in Egyptian numerals. The script has been dated on independent palaeographic evidence to about the reign of Merneptah (1234-1227 B.C.). Together with these bowls were found sherds of large decorated Aegean vases, which well accord with the suggested date, and which furthermore reveal the trade-connections of the city with centers of Mediterranean culture. The evidence at Tell ed-Duweir during the five campaigns has increasingly shown that a wanton destruction characterizes the final phase of Late Bronze.

In a section dug just within the city-gate, about eight feet below the Judaean floor level, which is flush with the floor of the guest room where the Lachish ostraca were found, an earlier road surface was uncovered, sloping down to the main gate. The two roadways apparently belong to the two final periods of occupation, each terminated by separate Babylonian attacks. Numerous loom weights, found in excavations in the upper levels within the city, show that weaving was an important part of the city's economy. East of the Palace-Fort stamped jar-handles were recovered.

Examination of the great rectangular shaft in the southeast part of the city continued throughout the season. About eighty feet below the surface of the water-laid filling, the rock floor was reached. When traced along the south wall of the shaft, it was seen to slope westward. The masons' tool-marks are still clearly visible. The available evidence seems to indicate that this great engineering project was never completed.

In the bed of the valley to the northwest of the tell, a section of a Roman road was uncovered. Coins found on the surface may show that it was used in Eusebius' day, and it may therefore be the road referred to by him in his *Onomasticon*² in connection with Lachish. This strengthens the identification of Tell ed-Duweir with Lachish. Work

¹ Cf. Alan Gardiner, *London Times*, July 16, 1937. ² Ed. Klostermann, 120: 19-22.

is continuing in London on the large series of crania found in 1935-6.³ Mr. Starkey commenced the sixth season of excavations at Tell ed-Duweir in November 1937. (He was assassinated on January 10, 1938, on his way to Jerusalem from Tell ed-Duweir to attend a preview of the Palestine Archaeological Museum before its official opening for the public. Palestinian archaeology has lost one of its most competent representatives, cut off in the prime of his life.)

The 1936-37 season of excavations at Megiddo,⁴ again conducted under the direction of Mr. Gordon Loud on behalf of the Oriental Institute of the University of Chicago, extended from December through April. The excavations were confined to two restricted areas, which were cleared layer by layer. The east area of private houses was cleared down to Stratum XVII (formerly Stratum XIII),⁵ which dates to about 2000 B.C. A period of slight rebuilding in Stratum XVI was followed by Stratum XV, of massive architecture, with red-burnished pottery similar to twelfth dynasty types from coastal sites, which suggest a late nineteenth century B.C. date for this stratum. In Stratum XIII, after another period of rebuilding in XIV, private houses predominated. There was a mud-brick city wall. In Stratum XII, this city wall was doubled in width, and the houses and streets were built with changed orientation. In Stratum XI (1700-1650 B.C.) an entirely new city-plan was inaugurated, which, with but few minor changes, continued in use throughout the late Hyksos period, and into Stratum VIII of the eighteenth dynasty. The gradual evolution of pottery can be clearly traced in numerous well stratified house-burials.

In the north area, the palace, which had been partially excavated during the preceding season, proved to be the most important structure examined. Throughout its five building periods, there was little change in plan or floor-level. Its original form probably belongs to Stratum IX (1550-1479 B.C.). The final stage of the palace may be dated from an inscribed ivory box to the reign of Ramses III. Stripped of all furniture and other objects at the time of each rebuilding, the palace supplied little cultural evidence aside from its magnificent architecture. Noteworthy exceptions

³ A.J.A. xli, 1937, p. 148.

⁴ Q.D.A.P.; I.L.N., Oct. 16, 1937, pp. 655-8; 684; Oct. 23, 1937, pp. 707-10.

⁵ A.J.A. xli, 1937, pp. 147-8; Q.D.A.P. vi, p. 219.

to the general sterility were a hoard of treasure buried beneath the floor of the second palace and a collection of carved and incised ivories from a three-chambered subterranean vault or treasury in the fifth palace. Among some of the objects from the first hoard are a pair of twin heads with disc crowns, fashioned in gold over a paste base, two cosmetic jars of serpentine and haematite, respectively, rimmed with gold, a magnificent gold bowl in the form of a shell, an intact gold mesh chain, a whetstone capped in gold, an ivory tusk banded with incised gold, with its small end in the form of a human head, cylinder seals of lapis lazuli, an electrum ring with scarab setting, and beads of granulated gold.¹

The collection of ivories from the fifth palace is probably the most comprehensive example of twelfth century B.C. "Phoenician" art yet known.² There are over two hundred pieces in the collection. It includes decorated tusks, a plaque of stylized lotus design with blue inlay, an incised plaque showing captives and offerings being presented to a prince seated on a throne, the sides of which are composed of sphinxes, representations of human heads, figurines, birds' heads, a head of a horned animal, an ivory comb, on both sides of which is an ibex attacked by a beast of canine type with finger-like claws, *Bes* figures, a human-headed sphinx clasping a cup, a gaming board of ivory inlaid with gold; a small box decorated on all four sides with carved figures of sphinxes and lions. Numerous pieces are still in the process of being cleaned, and where possible put together. The third campaign at Megiddo under Mr. Loud's direction commenced in December 1937.

In March 1937, Dr. E. L. Sukenik on behalf

of the Hebrew University undertook excavations at Afuleh in the Plain of Jezreel.³ The presence of an ancient settlement there at the end of the Chalcolithic Age was revealed. Besides the sherds of the period, there were remains of houses partly built of baked and unbaked lump bricks. In another part of the town, graves were found containing sherds of the Khirbet Kerak type. In other graves there was a considerable quantity of Middle Bronze Age pottery, and in still others pottery of the Late Bronze Age. Among the latter were locally made vessels of Mycenaean type.

In December 1937, at first under the archaeological supervision of Mr. P. L. O. Guy, Director of the British School of Archaeology, Jerusalem, and later under the direction of Dr. E. L. Sukenik on behalf of the Hebrew University, excavations were undertaken at Tell Küdádi (Shûneh) at the mouth of the Yarkon ('Aujâ) River, opposite the Tel-Aviv lighter-basin. During building operations carried out there last year by the Palestine Electric Corporation, the remains of ancient structures came to light. Subsequent excavations revealed the presence of a building, the walls of which were built alternately of piers of roughly-dressed stone and of sections of rubble. This is a type of masonry familiar from Megiddo and Tell Abû Hawam, where it belongs to the Israelite period. One of the walls of this building, which is probably a fortress, is still 4.50 m. high. The pottery, in addition to architectural features, dates it about the beginning of the first millennium B.C. The excavations have not yet been completed. Dr. Sukenik is of the opinion that the fortress was built as a protection against pirates, who might attempt to penetrate inland by way of the Yarkon River.

PALESTINE: LATE HISTORIC ARCHAEOLOGY

In May-September 1937, the Palestine Jewish Exploration Society, under the direction of Dr. B. Maisler, undertook the second campaign of excavations at Sheikh Abreiq,⁴ in southwestern Galilee. The first half of the season was used to complete the clearance of the big tomb-group in the western slope of the hill.⁵ Subsequently, three additional caves were cleared to the south, of which the third and fourth are of special interest. In the third tomb-cave, seven steps led down to a

¹ *I.L.N.*, Oct. 16, 1937.

² *Ibid.*, 23, 1937.

³ *P.E.F.Q.S.*, July 1936, pp. 150 ff.

⁴ *Q.D.A.P.*; *B.J.P.E.S.* iv: 4 (Jan. 1937), pp. 117-118; *B.A.S.O.R.* 67, pp. 35-6.

vestibule, nearly 10 m. long. The vestibule gives access to five halls by means of doorways, which are entirely preserved together with their lintels, doors and doorposts. On most of the lintels there remain traces of inscriptions, some incised and others painted in red paint. The stone doors are carved in imitation of wood. In hall V are seven small chambers with arcosolia, burial shafts, and rock cuttings shaped like sarcophagi. Below one of the arcosolia was found a human skeleton, and in two of the shafts were collected bones and fragments of wooden coffins together with their nails. The walls of the hall are decorated with

⁵ *A.J.A.* xli, 1937, p. 150.

several kinds of ornaments in relief, including a shell, a human figure supporting on its head a seven-branched candlestick — both together being two metres high, and columns cut out from the rock. Niches in the walls mark the places where pottery lamps were placed. In red paint on the walls are Greek and Palmyrene inscriptions. Hall II of this tomb-cave has arcosolia and *kōkim* cut in its sides. Its decorations in relief include a shell, a cup, a bowl with a flower in its center and rosettes around the bowl, seven-branched candlesticks, the *Tôrah*-shrine, a *shôfar*, and a roll-case. Decorations in relief in the fourth tomb-cave include a *Tôrah*-shrine with all its details, and a painted-over pair of lions placed above a rock-cut chair. In this tomb there are also representations of human heads.

The second half of the season was devoted to the clearance of several tomb-caves situated in a hill to the northwest of Sheikh Abreiq. In the sixth tomb-cave is a mosaic pavement, decorated with a carpet-like pattern. Besides interesting Hebrew inscriptions, two coins were found, one of them belonging to Heliogabalus (218–222 A.D.), the other to Maximianus (286–305 A.D.). In the seventh tomb-cave the excavators cleared one hall containing arcosolia and one shaft. Remains of lead coffins were found in the shaft. The head of the family buried in this tomb was called πρεσβύτερος and, to judge from the inscription ΟΜΗΡΙΤΩΝ, the family may have come from Himyar in Arabia. One of the most interesting decorations found was that of a sailboat.

The second season of excavation has thus produced invaluable material for the study of art, architecture, and epigraphy in Palestine and neighboring countries from the second to the fourth centuries A.D. The new results confirm and further illustrate previous conclusions. Important Jewish personages from Palestine and from the Diaspora were brought to Sheikh Abreiq, or Beth-Shearim, as it was then called, for burial. Many of the buried came originally from Palmyra, but the body of a woman had evidently been brought from Italy, while a quantity of Nabataean pottery found in one chamber suggests that the person buried there may have come from Nabataean Transjordan or Arabia; another family group may have been brought from south Arabia. Beth-Shearim may be ranked with Dura in its importance for the history of early Jewish and Christian art. Dr. Maisler, with the continued assistance of Dr. M. Schwabe and Mr. F. Bar-

Adon, hopes to commence the third season of excavation at Sheikh Abreiq in the spring of 1938.

In Jerusalem, in connection with municipal improvements in the area outside the north city wall, a number of soundings was made by the Public Works Department and the Department of Antiquities at selected points, with the double purpose of enabling the Department of Antiquities to advise as to the levels that should be adopted in the area, and of obtaining evidence that may throw light on the history of the present north wall. At least four distinct periods of building have been observed at certain points where the foundations of the wall have been uncovered. The correlation of these periods with one another and with the associated débris is being worked out with the help of stratified deposits of pottery of varying depths.

In a sounding made beside the western of the two towers flanking the Damascus Gate, the earliest period is represented by a monumental plinth, with moulded profile, composed of masonry similar in character to that of the Herodian enclosure to the Haram of Abraham at Hebron. This plinth forms the foundation of the existing tower, which is built directly upon it. (It has been ascertained that a similar plinth exists below the eastern tower.) The lower courses of the plinth are bonded into the foundation courses of the curtain wall where they abut upon it.

A clearance made near the first tower to the west of Herod's Gate, has shown that, at some period not yet fixed with precision, the wall stood some metres in advance of its present line and was fortified by a tower set on a rock scarp overlooking a deep cutting, now filled up to the level of the Jericho road. The lowest regular course of the existing wall is composed of drafted masonry of the Herodian type, but set on a regulation course of rough stones. At an early period, the construction represented by this course was rebuilt in well cut and jointed material without marginal draft. This is associated with pottery of Byzantine type. Between this rebuilding and the construction of the upper (Turkish) parts of the wall at least one period intervenes, excluding the construction associated with the rock scarp.

Recent investigations¹ incidental to the sewage works in the olive grove west of the Crusader Church of the Tomb of the Virgin in the Kidron

¹ From Department of Antiquities Press-Communiqués of June 26, 1937; Nov. 1, 1937.

Valley (Wâdi ej-Jôz) have afforded further indications of the plan of the contemporary Abbey of St. Mary of Jehoshaphat.

In May and June 1937, Dr. A. M. Schneider, under the auspices of the Goerres-Gesellschaft, carried out the third season of excavation at Kh. Minyeh.¹ The main results of the third season were the discovery of a mosque measuring 13 by 20 m. and an adjoining palace. The semi-circular praying-niche in the south wall was found intact. There were three entrances to the mosque. The west entrance connected the mosque directly with the rooms of the adjoining palace. It seems that the mosque, as well as parts of the palace, was never completed, as shown by the presence of a mosaic workshop outside the north wall of the mosque, and the presence in two adjoining rooms of large quantities of multicolored stones, which were being cut into mosaic cubes.

The plan of the palace was fairly well established, but more work is required until the palace-complex is entirely excavated. In the center of the palace was a marble hall flanked on each side by groups of rooms of equal size. On the east side was an arched hall leading to the mosque. On the west side, five rooms formed a compact unit occupying the same space. The marble hall was divided into three aisles by marble roof-supports and contained considerable remains of marble paving and marble wall-covering. Large quantities of multicolored glass mosaic-cubes were also found there, either intended for, or fallen from, a rich mosaic decoration on the walls. In the arched hall a gold dinar of the Umayyads was found between the slabs of the uncompleted paving. This dinar and another one found in the ruins agree in their dating with the previously discovered building inscription, according to which the Caliph Walid ordered the construction of the palace. Albright's² suggestion,

made in 1936, that the palace might be another example of Umayyad architecture is thus substantiated. In the five rooms situated west of the marble hall were found mosaic pavements in an extraordinarily good state of preservation. Only two of the smaller rooms have been completely excavated, the large middle room and the two other small ones only partly so. The mosaic pavement of one of the small rooms suggests a pleated carpet. The field of each of the other pavements was divided by a guilloche into squares filled with geometrical designs.

Toward the end of 1936, the Palestine Exploration Fund and the British School of Archaeology in Jerusalem formed a joint committee to undertake the revision of the archaeological part of the Survey of Western Palestine which was carried out by Conder and Kitchener on behalf of the PEF during the seventies of the last century. The new Survey has been placed under the direction of Mr. P. L. O. Guy, Director of the British School of Archaeology in Jerusalem. The area to be covered is that included under the Mandate, with the exception of Transjordan. The map to be used for most of this area is the new 1: 100,000 map now being prepared by the Palestine Government.³ In August 1937, Mr. Guy began field-work on the basis of Sheet 7 (Jaffa-Tel Aviv), visiting a number of sites, several of which had not been listed by the original surveyors. Mr. D. Bellerby, who is the architect and surveyor for the Survey, has made plans of the castle at Râs el-'Ain and of the interesting 'Anazîyeh, or "Cistern of Helena," at Ramleh, one of the earliest buildings in which the pointed arch is used. In December 1937, Mr. G. E. Kirk, another member of Mr. Guy's staff, and Mr. Bellerby examined a number of sites in the Negeb, among them being Kurnub and several places on the track leading down to el-Hosb.⁴

TRANSJORDAN: PREHISTORIC AND EARLY HISTORIC ARCHAEOLOGY

Mr. J. D. Waechter, on behalf of the British School of Archaeology, Jerusalem, undertook the archaeological survey of the Wâdi Dhôbai, about 40 kilometres east-southeast of 'Ammân. The work began in December 1937, and thus far eight stone-age sites have been found. Six of them belong to a culture which has provisionally been called Dhobaian, and which has strong resem-

¹ *Q.D.A.P.*; *Das Heilige Land*, 81: 4, Oct., 1937, pp. 117-122.

² *A.J.A.* xli, 1937, p. 149.

blances to the lower levels of Jericho.⁵ The material from the other two sites is similar to level F of Mughâret el-Wâd in Palestine.

The American School of Oriental Research in Jerusalem continued its archaeological survey of Transjordan during 1937 under the direction of the writer, in co-operation with the Transjordan Department of Antiquities. The survey of Edom

³ *P.E.Q.*, Jan., 1937, pp. 19-30.

⁴ *Annual* xv, p. 115.

⁵ *L.A.A.A.* xxiv (June, 1937), pp. 35-51.

and Moab has now been completed, and been extended to central Transjordan. Over one hundred and fifty additional sites have been examined since the last report in this JOURNAL,¹ in the area extending roughly between an east-west line touching the north end of the Dead Sea and the Wādī Zerqā. The same extensive EB III-MB I civilization (2300-1800 B.C.) was found also to exist in this area, as well as the 1800-1300 B.C. gap in the history of permanent sedentary occupation, which had been previously noted in Edom and Moab. The results for the Early Iron Age in central Transjordan also agree with those previously obtained in southern Transjordan: the main occupation extends from the thirteenth century to the eighth century B.C., followed by a very rapid decline down to the sixth century B.C. The

beginning of permanent sedentary occupation in central and southern Transjordan, after the long hiatus in the Middle and Late Bronze Ages, definitely antedates the commencement of the Iron Age in Western Palestine. The Early Iron Age civilization in the Amorite-Ammonite territory was found to be a highly developed one, characterized particularly by building-complexes constructed of great stone blocks. It was possible definitely to determine that the so-called "megalithic" type of round tower (*malifif*), frequently met with in Amorite-Ammonite territory, belongs to the Early Iron Age. It was also possible to delimit the northern boundary of the Nabataean kingdom in Transjordan. It may roughly be marked by a line running west-east from the north end of the Dead Sea.

TRANSJORDAN: LATE HISTORIC ARCHAEOLOGY

The ruins of a Nabataean temple, Khirbet et-Tannūr,² were excavated during March-April and December 1937 by a joint expedition of the American School of Oriental Research, Jerusalem, and the Transjordan Department of Antiquities, under the direction of Nelson Glueck and Lankester Harding. Khirbet-et-Tannūr is situated on the top of a high, isolated hill immediately south of the Wādī el-Hesū.

The excavations revealed the complete temple-complex. There was an outer east court, fronting a raised inner temple area which contained a central platform shrine. The temple is oriented almost exactly due east. Over the entrance to the raised inner temple-court was a large, semicircular panel, with the huge bust of Atargatis represented as the goddess of foliage and fruit in the center of it. The east façade of the wall of the inner temple area was decorated with a frieze of busts in relief of Hadad, Atargatis, and Helios figures. The inner platform shrine, which, like the rest of the temple, was rebuilt three times owing to earthquakes, was ascended, at least during the last two periods of its history, by steps leading to its top. On the top of the platform there was probably originally an altar. On the east façade of the shrine was attached a large relief of Zeus-Hadad seated between two young bulls. A thunderbolt is visible beside his left arm, and his raised right hand, now broken off below the elbow,

probably held aloft originally a double ax. There is reason to believe that next to him originally was a relief of Atargatis, seated between two lions. One of the lions has been found. The courses of the corner pilasters on the east façade of the shrine were decorated with busts in relief of Atargatis as the "fish-goddess" and as the "grain-goddess." A Nabataean inscription was found dated to the year two of the reign of Haretat and his wife Huldū, that is, to 7 B.C. Among the numerous fine sculptures there may be mentioned also the panel of Tyche with a mural crown; around the Tyche panel is a panel of the figures of the zodiac arranged half in clockwise, and half in counter-clockwise order, suggesting the celebration of two New Years, one in spring, and the other in autumn. On the north and south sides of the inner temple area and the outer east court are a series of triclinia, where the ritual feasts were celebrated. Some of the rooms were well paved, with a high rebated bench around three sides of each room. The small quantities of fine Nabataean sherds found belonged mainly to the earlier history of the site.

In March 1937 an expedition of the British School of Archaeology in Egypt, working under the direction of Miss A. M. Murray, with the assistance of Mr. J. Ellis and Mr. J. A. Saunders, undertook the excavation of two small sites in Petra,³ both of them on the slope overlooking the Wādī Abū 'Olleiqah.

During the summer of 1937, the Franciscans

¹ *A.J.A.* xli, 1937, p. 151; cf. *B.A.S.O.R.* 68.
² *B.A.S.O.R.* 64, p. 1; 65, pp. 15-19; 67, pp. 6-15; *I.L.N.*, Aug. 21, 1937, pp. 298-300; *A.J.A.* xli, pp. 361-376.

³ *Q.D.A.P.*; Ellis: "Petra," in *Syro-Egypt* 3, 1938, ed. by Sir Flinders Petrie.

of the Custody of the Holy Land and of the Franciscan Biblical Institute in Jerusalem, coöperated, under the direction of Father Sylvester Saller, O.F.M., in a third archaeological expedition to Mt. Nebo (Jebel Siyâghah). Work began on July 3 and lasted until October 15. During this campaign the work on the Byzantine church-complex was finished, with the excavation on the western slope of a large, three-winged building, a mosaic house, some cave-rooms and a cistern, and two monasteries on the southern slope, together with several other buildings by them and two cisterns beyond them. The buildings excavated in 1937 were constructed of neatly squared stones obtained from quarries on the site. The walls of the buildings and cisterns were plastered. Numerous stone basins were found, one of them on a round shaft or pedestal crowned by the volutes of an Ionic capital; two ends of the volutes are decorated with crosses. A number of inscriptions were found on marble fragments. Of special interest were a marble bowl and the largest white altar slab yet found at Siyâghah. The materials excavated date from the fourth to the seventh centuries A.D.

The École Biblique et Archéologique Française de Jérusalem, under the direction of Père R. Savignac and Père R. de Vaux, undertook in October 1937 a two weeks period of excavations

at Mâ'in, southeast of Mâdebâ, in Transjordan. A mosaic floor of a church was exposed, of which otherwise very little remains. The pavements, however, of the septentrional annex and the nave are partially preserved. The mosaic floor decoration of the nave is particularly interesting. The central panel, which is ornamented with a combination of circles and octagons, is framed with a band of acanthus leaves, and then with a border containing primitive representations of about twenty-four churches of Palestine and Transjordan, with their names above them. Unfortunately, more than half of this border was found to have been destroyed, and there remain in their entirety or only in part, as the case may be, the following churches: Nicopolis, [Eleuthero]polis or [Georgiopolis], Ascalon, Maiumas, [Ga]za, Od[roa], [Cherachm]uba, Areopolis, Gadoron, Es[bus], and Belemunim (= Baalmeon). The mosaic should date to the end of the sixth century A.D. or the very beginning of the seventh century A.D. At the beginning of the eighth century A.D., the mosaic was severely damaged by vandals. The damage was then clumsily repaired. The restoration was dated by an inscription now incomplete, which, it seems, is dated to 719/720 A.D. The detailed report on these important excavations is being prepared by Père R. de Vaux, and is to appear in the June 1938 number of the *Revue Biblique*.

SYRIA: EARLY HISTORIC ARCHAEOLOGY

The 1937 excavations at Byblos, again under the direction of M. Maurice Dunand on behalf of the Government of Lebanon, were carried on in the area of the Phoenician city. They revealed the fact that the temple of the obelisks was built over an older temple, which apparently was constructed at the beginning of the third millennium B.C. and was destroyed by a great fire about 2250 B.C. There was no layer of débris between the first temple and the temple of the obelisks. In order to study the temple of the obelisks carefully, it was found necessary to demolish it stone by stone and rebuild it nearby in an area which had previously been excavated down to virgin soil. As a result, five construction-stages could be distinguished, the first belonging to the Middle Empire and the last to the period of Ramses II. The obelisks came from the first four stages. The one with the name of King Abishemu on it is from the third stage. It is certain that this king of Byblos is not the one who was interred in tomb II of the time of Amenemhat IV.

In the course of the demolition, numerous isolated groups of offerings were found in the walls above their plinths. Two extremely rich deposits were uncovered in the earth of the courtyard. One of them found facing the *cella* yielded nine ceremonial fenestrated axes, made of heavy gold and ornamented with filigree and incrusted work. The main find of this group was a handle, whose lower end was encased in a gold filigree cover of exquisite workmanship. The images of Gilgamesh and Enkidu (?) are represented on the handle. Engraved on the blades are scenes of worship. The technique and the mythology evidenced testify to a strong Mesopotamian influence. This deposit also contained a splendid gold vase decorated with filigree work and with inclusions of granules of lapis lazuli. On the shoulder of the vessel, two small figures are represented seated opposite each other, clothed only in a short skirt. Among other finds may be mentioned a figure of a small falcon with outstretched wings, three gold vases, and a large gold disc.

Close to this deposit, by the north corner of the *cella*, a jar was found, containing fifty twisted gold torques, some gold discs, a charming group of three birds (made of gold ?), and a beautiful silver vase. Another sanctuary of the Middle Empire, or a little later, was discovered near the south edge of the plateau. Seven unhewn blocks of stone, less than a metre high, are aligned in front of an altar.

Belonging to the first part of the XIIth Dynasty was a rich ceramic deposit, found in connection with a cult-place which has not yet been excavated. It contains pottery of fine reddish ware, well fired, and covered with a thick, red slip. In addition there are separate, alternating bands of lightly applied blobs of white paint and diagonal stripes. Other pottery finds include a rhyton almost identical with one from the fourth tomb of Mycenae, a number of *kernoi*, vases in the form of gourds, and others with oval-lentoid shapes, tear bottles, and jars with long moulded necks, sometimes decorated with animals in relief. This pottery suggests a relationship with that of the first palace of Knossus. There was also found a group of intact jars similar to those found by Petrie in the tombs of Abydos of the First Dynasty.¹

The ninth campaign at Ugarit (Râs esh-Shamrah) in the spring and early summer of 1937, again under the direction of M. Claude F. A. Schaeffer, was productive of results important generally for the history of the ancient Near East, and more particularly for the history of Ugarit during the third and second millennia B.C. The excavations exposed a section of the city as well as five important intact tombs of the time of the Hyksos invasion in Egypt and the downfall of the first Hittite Empire in Asia Minor. At the extreme northeast end of the *tell*, there was exposed an important building, one room of which measured 30 by 10 metres. It was probably a palace and was surrounded by several other spacious houses. The palace and the adjoining houses were provided with a highly developed drainage system. Among the cuneiform tablets discovered, there was one addressed by a seer to the queen of Ugarit. Immediately by the side of the palace, there were found the ruins of a sanctuary, where valuable offerings had been placed. Among them were two bronze statuettes of deities, belonging to the beginning of the second millennium B.C. They reveal an art hitherto unknown in Syria. One of

¹ *Royal Tombs II*, p. 46.

the most important discoveries was a socketed bronze battle-ax, which was covered with gold and decorated in relief with the figure of a boar and with two lions' heads; the cutting edge of the ax was made of forged iron. Dating from the middle of the second millennium B.C., the forged iron blade of the battle-ax constitutes the oldest example of forged iron actually known, preceding the famous dagger from the tomb of Tut-anh-Amon. M. Schaeffer's expedition also undertook some archaeological investigations on the summit of Jebel Aqrâ, the Mt. Casius of antiquity, where a place of sacrifice was found which seems to have been used also before the Greek epoch. The expedition also partially excavated there the ruins of the abbey of St. Barlaam, which was built over the foundations of an ancient pagan temple.

The Oriental Institute of the University of Chicago continued the excavations at Tell Tainât, again under the direction of Dr. C. W. McEwan. The excavations have not yielded many individual finds. Most of the season was occupied with the removal of masses of débris which hid the foundations of massive buildings. Dr. McEwan hopes to return to Tell Tainât in April 1938, and continue the clearance of these buildings, further work on which was made impossible by the winter rains.

The fourth campaign of the Louvre at Mari² on the Middle Euphrates, under the direction of M. André Parrot, lasted from December 1936 to April 1937. In the excavation of the temple of Ishtar, level C of the pre-Sargon sanctuary was exposed. Under this level were some stone-built tombs. In one of them were found bronze vessels, breastplates and frontals made of gold, and painted, polychrome pottery of the type of "scarlet ware." In level D there was found a small sanctuary. The stone foundations of an exceedingly well built structure were then uncovered. It may be a palace, and belongs to the second half of the fourth millennium B.C.

Excavations were continued in the great palace³ of the twenty-first and twentieth centuries B.C.; 220 rooms were examined. This year the gate of the palace was found, with a double door-socket. In addition, there was a small royal sanctuary containing a court and two rooms. Among its foundation deposits were a finely sculptured head of a man in alabaster, a small headless statue of Idilim, and another inscribed statue. Several

² *I.L.N.*, Oct., 1937, pp. 763-5.

³ Cf. *A.J.A.* xli, 1937, p. 152.

thousand additional tablets were found, belonging to the diplomatic archives of Zimri-Lim, the last king of Mari, whose reign seems to have been brought to an end by the victory of Hammurabi. Of particular importance are the numerous and exceptionally well-preserved paintings which have been recovered from Mari. They shed an entirely new light on the art of painting at about 2000 B.C. In the great court of the palace is a dais, the upper face of which was painted in rectangles to give the effect of marble. In another court of the palace, the walls were decorated with large pictures painted on plaster. Two of the panels reconstructed by the excavators show a sacrificial ceremony.

In addition to the above mentioned undertakings, M. Parrot commenced the excavation of a massive *ziggurat* and its esplanade, on which a temple opened. Two lions, the wooden bodies of which were encased in bronze, were found guarding the entrance of the temple. There were probably at least fourteen such lions in position around the temple.

In a letter of November 1, 1937, M. Parrot informed the writer that the fifth campaign under his direction which will last probably from December 1937 to April 1938, will concern itself with the complete excavation of the *ziggurat* and its esplanade, and with the continuation of the excavation of the great palace, which, however, will probably take several more seasons before the work on it is finished.

The 1937 campaign at Hamath on the Orontes (modern Hamā) was again directed by Professor Harald Ingholt of the American University of Beirut, on behalf of the Ny Carlsberg Glyptothek in Copenhagen. Thirteen tombs of the Roman period were excavated, containing many lamps, glass bottles, fragments of wooden coffins, coins, a bronze mirror and ring. A considerable number of funerary jars with geometric designs was found in a sounding in the city proper.

Important discoveries were made in the Aramaean level, the remains of which date down to 720 B.C., when the city was burnt and destroyed by Sargon. Several rooms which had been stocked with jars of provisions were found in the west part of the large building, which had been partly exposed in 1936. During the last few days of the excavation, the walls of another building became visible, which yielded much polished red pottery as well as an imported skyphos. From the large building mentioned above, a ramp led down to the

monumental entrance of the citadel. On the ramp, a small number of basalt sculptures was found, including a complete lion, a head of a gigantic lion, an offering table, and a throne, on each side of which was a winged sphinx, and on its back two stylized lions. Engraved on several red polished bricks found on the ramp were Aramaean graffiti giving names of persons or of places, such as Hanan or Hamat, as well as an inscription reading: "Adam(n)l-ram, governor of the king's house."

To the northwest of the entrance of the citadel, the 1936 excavations laid bare the walls of a building which was identified as a temple. Further excavations in 1937 below this building revealed the presence of several earlier ones, among which, besides other objects, a cuneiform tablet was found. To the northeast of the mound, excavations were undertaken in an area, the top level of which, to judge from the surface pottery, dated to about 3000 B.C. The excavations were carried down for five metres. Much hand- and wheel-made pottery was found, and a large number of painted sherds. A number of jars with skeletons in them was found, one skeleton being found in a well preserved state. There were numerous flints, while metal objects were scarce. Pottery-figurines were found with representations both of women and of animals. The most important finds were four limestone sculptures, including two torsos, a bust and a head.

At Atchana,¹ near Antioch, the British Museum carried out excavations in 1937 under the direction of Sir Leonard Woolley. Painted pottery had been found in a sounding there during the previous year with striking analogies to the pottery both of Minoan Crete and of Nuzi and Tell Billah. The excavations yielded a large collection of this peculiar ware. Some of the pottery is large and coarse, but most of it is fine, almost egg-shell thin ware. The commonest shape is a tall goblet, and the decoration is most often in horizontal bands, but sometimes the whole surface is covered with an elaborate design, such as that of the conventionalized papyrus into which is introduced the motive of the double ax—reminiscent of Crete. The painting is nearly always in creamy white on a black or red ground, but sometimes the reverse technique is used.

The site was apparently abandoned in the twelfth century B.C. and never again inhabited. The uppermost building excavated contained im-

¹ *I.L.N.*, Oct. 9, 1937, pp. 604-5.

ported Mycenaean pottery of the fourteenth-thirteenth centuries. It was in this level that cuneiform tablets were found, two of which belong to the same series as Râs Shamrah. One of the tablets is a royal letter of about the time of Akhnaton. In the next level, which probably dates from the fourteenth to the fifteenth centuries B.C., the painted "Atchana" pottery is common. The town of that period came to a violent end, and with that disaster the fine painted wares disappeared. Clay seal-impressions bearing inscriptions in Hittite hieroglyphs were found in this level. In this, and the third and fourth levels, "Atchana" pottery is associated with Hittite culture. A building in the fourth level yielded a splendid series of local pottery, together with examples of imported Cypriote wares. In another spacious building in the fourth level, the walls of which are wainscoted with blocks of polished basalt and sheathed in wooden panelling or decorated with colored plaster, parts of large cuneiform tablets were found. They give part of the terms of a treaty of alliance between a king of Alalah, which may be Atchana, and "the king of the tribes of the Hurri." The fourth-level remains are to be dated to the sixteenth century B.C. and include the oldest Hittite buildings yet found in Syria.

Under the direction of Mr. M. E. Mallowan, on behalf of the British Museum and the British School of Archaeology in Iraq, a third campaign of excavation was undertaken in 1937 at Chagar Bazar, a site which lies in the northeast corner of Syria,¹ 25 miles southwest of Nisibin. In the last occupation of the city, a collection of 70 cuneiform tablets was found, which appear to have been written about 1900 B.C. and which record the receipt and issue of grain. They mark the begin-

nings of a period which probably lasted for two or three hundreds years. A large battle-ax, similar to the specimens discovered at Ras Shamrah and Atchana, was found. Some splendid examples of painted pottery, known as Habur ware, and an engraved carnelian cylinder seal surmounted by gold caps also are to be dated approximately between 1900 and 1600 B.C.

The greater part of the campaign was devoted to the excavation of Tell Brak, situated at a strategic point on the ancient caravan route connecting Nineveh with the cities of Syria. The Romans placed one of their most important camps there to guard the eastern frontier of Syria. Preceding the Roman period, the last previous occupation may be dated about 1500 B.C. Painted "Habur" pottery was found and goblets with drawings of birds and geometrical designs in white paint on a black or red background. There was also a pedestal-based "face vase," with affinities to the "Hurrian" ware of Atchana to the west, and of Billa, Nineveh, and Ashur to the east. It is moulded in the shape of a man's head. The facial details are emphasized by the use of paint.

The southern half of the mound was found to contain a vast palace, entirely Sumerian in plan, measuring approximately 100 by 80 yards. The lay-out of the building is analogous to that of the great courtyard at Ur. Numerous inscribed seal-impressions indicate the period 2500-2300 B.C. as the approximate date of the occupation of the palace. One of the houses, of a group abutting on the northeast end of the palace, contained a private chapel with a decorated semicircular clay altar standing in one corner. The altar was ornamented with a scalloped façade and two rows of panelling covered with whitewash.

SYRIA: LATE HISTORIC ARCHAEOLOGY

The campaign of 1936-37 at Dura-Europus² under the direction of Mr. Frank E. Brown was the last, at least for the time being. It was, therefore, a campaign of completing unfinished work, final cleaning, and study rather than one of regular excavation. New work was undertaken only in the Agora, where the excavations in the east half of the Hellenistic agora area were completed, in the necropolis, where chamber and tower tombs were cleared, and in the temple of Atargatis where the early levels were excavated. In addition, final

cleaning was done all along the fortifications, in the Citadel, the Acropolis Palace, the Temples of the Palmyrene Gods, the Gaddé and Zeus Kyrios, and in the Christian Building. The most important result of this work was an increased knowledge of the size and importance of the city in Hellenistic times. It can now be stated with certainty that all the fortifications in stone, including the Citadel, begun with the founding of the city in ca. 300 B.C., are works of the Hellenistic period. The palaces, *strataeia*, of the Citadel and the Acropolis both show early Hellenistic buildings superseded by structures of the late Hellenistic or

¹ *I.L.N.*, Jan. 15, 1938, pp. 92-95.

² *C.R.*, April-June 1937, pp. 195-204.

early Parthian period (175-125 B.C.). The second palace of the Citadel was Parthian in plan, with great *livans*, as at Hatra, and domestic quarters in the rear. The Hellenistic Agora comprised eight city blocks on the north side of the Main Street in the center of the city. Here a vast open square was flanked on three sides by monumental shop buildings.

In the temple of Atargatis a sanctuary of about 50 B.C. was found to have preceded the temple of 32 A.D. The earlier building already shows the familiar purely oriental temple-plan. Here three new inscriptions came to light, one recording the dedication of phalloi to the goddess. In the temple of the Gaddé, four building periods from the third century B.C. to the second after Christ were traced. Similarly the Temple of the Palmyrene Gods proves to have developed in three main periods. The Christian Building, on the other hand, was built as a house only in the late second or early third centuries A.D.

The work in the necropolis now makes it possible to restore with certainty the entire superstructure of the tower tombs which show a curious blend of Hellenistic and Mesopotamian forms. Chief among the finds were a large mask of Atargatis, an inscribed stone libation bowl, and a green glazed thymiaterion in the form of three stags.

In the spring of 1937, the Antioch expedition of Princeton University and the Louvre carried on its work again under the direction of Mr. W. A. Campbell. Excavations were carried out in Antioch and Daphne, and during the summer in Seleucia. Inasmuch as a detailed report is to appear in the Archaeological Notes of the JOURNAL, the reader may be referred directly to the report.

Under the direction of M. Daniel Schlumberger,

on behalf of the Académie des Inscriptions and the Syrian Government, excavations were carried out again in 1937 from the end of May till the end of September at Qaṣr el-Heir el-Gharbī,¹ which is about sixty miles northeast of Palmyra. During the four months of excavation, the Umayyad castle was excavated, together with an Umayyad bath discovered close to the castle. It is proposed in the 1938 campaign to complete the clearance of the bath. The excavations yielded numerous remains of decorated stucco work. Enough material was obtained to permit a reconstruction in the Musée de Damas of several rooms of the palace. Among the painted decorations may be listed multicolored rosettes, based on Sassanian models. A number of fragments of Greek and Arabic texts was found.

In the report of the 1936 excavations,² M. Schlumberger distinguishes four main influences in the art of Qaṣr el-Heir, namely the Graeco-Roman, the Palmyrene in particular, the Christian and the Iranian. The entire complex of Qaṣr el-Heir,³ which besides the Qaṣr el-Heir el-Gharbī and other constructions includes the great barrage of Kharbaqā, about fifteen kilometres to the south-southeast of it, whence water was led through an aqueduct to the huge walled garden area (a kilometre long and about 600 metres wide) north-northwest of Qaṣr el-Gharbī, goes back originally to the Palmyrene epoch.

NELSON GLUECK

American School of Oriental Research
Jerusalem, December 30, 1937.

¹ Cf. Creswell, *Early Muslim Architecture*, pp. 330-349.

² C.R., April-June, 1937, pp. 134-139.

³ Poidebard, *La Trace de Rome dans le Désert de Syrie*, Atlas, pl. XXXII-XXXVII.

BOOK REVIEWS

THE TEMPLE OF RAMESSES I AT ABYDOS, by *H. E. Winlock* (The Metropolitan Museum of Art, Papers, No. 5). Pp. 20, figs. 5, pls. 5. New York, 1937. \$1.50.

In 1911 and 1912 the Metropolitan Museum acquired by gift from J. Pierpont Morgan and Dikran Kelekian many sculptured blocks which had been removed by natives from the mortuary temple of Ramesses I at Abydos, Egypt. Winlock in 1921 published these and such other reliefs from the same source as had remained in Mr. Kelekian's hands, with discussion of their religious and artistic significance. Meantime the building itself had been located, and the appearance of Winlock's study led to its complete clearance by the Service des Antiquités at the Museum's expense. Though the remaining sculptures were found to be in such poor condition that they could not well be preserved, members of the Museum staff did at least record them and establish the original locations of all the blocks. It turns out that only one stone chapel, rather than several, existed. The structure as a whole illustrates a royal mortuary temple in its most simplified form. Mr. Winlock now presents an account of its architecture and decoration as a whole.

The recently recovered inscriptions make it certain that this temple was built not by Ramesses I himself but by his son Sêthy I, who succeeded him after a reign of probably only a year and four months—too short to permit the father to carry out such a work for himself. The fact that the son built it is doubtless responsible for its relatively small size, since Sêthy had his own mortuary service also to provide for. Just north of Sêthy's huge temple complex the grounds of the little temple were laid out. Its temenos wall of mud brick had a limestone gateway, in line with which came the entrance to the limestone chapel. Brick-walled side chambers had existed, but could not be traced, since they were overlaid by modern natives' houses, damage to which had to be avoided. According to the inscriptions, even this tiny temple had its pool and a garden planted with trees and flowers.

On the façade of the chapel were recorded Sêthy's presentation of the temple to his father and the latter's grateful acceptance. Within, at the left, were pictured ritual acts and the presen-

tation of an oblation before a statue of Osiris. Participating in the oblation scene appear Ramesses' queen, his mother, and his (?) brothers and sisters. At the right were perpetuated ceremonies and offerings—largely of food—before a statue of Ramesses. At the rear was built a platform, on which stood the objects of worship. Winlock visualizes it as occupied at left and right respectively by actual statues of Osiris and of Ramesses and between them by an image of the Abydene symbol of Osiris—one of two ancient symbols of that god before which, on the rear wall, Sêthy at the left and Ramesses at the right were shown presenting offerings.

Ramesses I's little temple, the story of which is outlined above, is described clearly and succinctly by the author. As a simplified type it suggests the fundamentals required to provide a worthy hereafter for rulers of the Egyptian Empire.

T. GEORGE ALLEN

UNIVERSITY OF CHICAGO

A CATALOGUE OF EGYPTIAN SCARABS, SCARABOIDS, SEALS AND AMULETS IN THE PALESTINE ARCHAEOLOGICAL MUSEUM, by *Alan Rowe*. Pp. xlivii+348, figs. 7, pls. 38, map 1, graph 1, tables 2. Cairo, 1936. £1.5.0.

The scarabs and related types of objects in the Palestine Archaeological Museum have been catalogued in detail by Mr. Rowe in this volume, accompanied by a fine series of illustrative plates. The historical background, against which these Egyptian or Egyptianizing objects are to be set, is brought out by an extensive chronological list of contacts between Egypt and Canaan. The scarab-forms have been analyzed and elaborately classified in the plates. The material has been well indexed, by forms, by content of the inscriptions, and by source. A map shows the sites from which the objects have come. A graph and tables at the end illustrate the relative frequency of the objects by period and by site.

The reviewer has been particularly interested in this volume because it includes many finds made at Megiddo by the Oriental Institute of the University of Chicago and now in process of publication by that institution, with which he is connected. Using those objects as a starting point, he finds various general questions involved. The au-

thor has wisely made clear in his preface many of the uncertainties that arise in dealing with scarab legends. Even so, he has perhaps been too definite in some instances. For example, on his page x he equates with the *ntr* sign a form resembling a carpenter's square. This might indeed be considered a modified form of *ntr*; however, scarabs to be published by Lamon and Shipton in an Oriental Institute volume entitled *Megiddo Strata I-V*, Plate 67, Nos. 15 and 44, show a development indicating that the form is actually derivable from a pair of protecting wings, extending at right angles from a sun disk. In the inscription on No. 59 of the catalogue we should probably not read *htp*; perhaps the sign is *b'*. The supposed parallel of the *htp* form in one of Petrie's volumes actually looks quite different. Mr. Rowe regularly prefers the reading *w'h*, "endurance," for a sign which he himself states in his discussion of No. 356 could in some cases be read as *s'*, "magical protection." To the reviewer the latter reading would seem the more likely in most cases. Photographs are not always unequivocal authorities for the reading of Egyptian hieroglyphs. The author's illustration of his No. 122, for example, makes at least plausible his reading of the same signs at each side. However, comparison with other photographs in the Oriental Institute files would seem to make it certain that these particular signs can be present on only one side at most.

Even when the nature of each sign is clear, a scarab inscription can present many difficulties of interpretation. Mr. Rowe finds, for example, an astonishing number of references to a king *R'-nfr*. Petrie (*Scarabs and Cylinders with Names*, London, 1917, Pl. XX) places a king of this name at about the 14th dynasty, but his existence is subject to plentiful question marks in Henri Gauthier's index to his "Livre des rois d'Egypte" in *Bulletin de l'Institut français d'archéologie orientale* xv, 1918. Moreover, the signs may equally well be read *hrw nfr*, which means "holiday" or "a good time" and has frequently (and probably rightly), when found on scarabs, been so interpreted as an expression of a wish. Scarab No. 771 says indeed "Good is the son of Amon"; but the "son of Amon" may be simply the name "Siamon," borne among others by a son of Ramses II and by a 21st dynasty king. In scarabs Nos. 46, etc., the "gold" sign might be considered to stand for the goddess Hathor as readily at least as for a Middle Kingdom king. On his pages 285 f. the author continues to translate  as "excite

love," as in his contribution to Reisner's *Mycerinus*, p. 275; but Sethe's interpretation of it as "be friendly," based on the similarly written noun *smr*, "friend," seems better.

Mr. Rowe's volume represents an enormous amount of detailed study and labor. Its gradual growth is evident in the various "addenda" noted in the table of contents. Corrigenda, due largely to the fact that the author was engaged in field work while part of the pages were in press, are given on pages xi f., with further corrigenda on pages there referred to (neither list mentioned in the table of contents). Apart from the complexities caused by such scattering of data, the book is very usable. It is highly important as the most elaborate treatise yet made available on Egyptian scarabs used and/or originating abroad.

T. GEORGE ALLEN

THE UNIVERSITY OF CHICAGO

MEDINET HABU GRAFFITI, FACSIMILES, edited by William F. Edgerton. The University of Chicago Oriental Institute Publications, James Henry Breasted, Editor, Thomas George Allen, Associate Editor, Vol. XXXVI. Pp. xi+10, pls. 103. The University of Chicago Press, Chicago, Illinois (1937). \$15.

Texts of graffiti of the same locality are mostly "disparate and usually inconspicuous" regarding history; yet, in spite of it, they must be collected and copied either by tracing, drawing or photography, in some cases even by paintings, for if there is among them only one text of historical or philological importance, science could not afford to lose it. This is still more the case if, as here, there is a number of such texts in a collection.

There is, however, still more to be said in favor of this group of inscriptions, which are of a type usually looked upon with an air of little esteem. Although one of these inscriptions taken alone may be of no great value, the great number of them, as a mass, may illustrate certain conditions of the locality, reflect, in one way or another, the character or intentions of the visitors to the place, and pique the fancy of the reader.

A personal fondness for the type of material just described is absolutely necessary if we consider the great amount of work spent in making and reproducing the splendid facsimiles; for the volume before us consists only of the magnificent plates which reproduce in masterly fashion the originals, a work done during three seasons between 1928 and 1933; but we hope that these texts

will be transliterated and translated with philological and historical notes in the Chicago series of the "Studies in Ancient Oriental Civilization." The facsimiles were drawn by the editor with the assistance of J. A. Chubb, R. M. Engberg and D. N. Wilber; the latter also made the paintings. The photographers were Henry Leichter, A. A. Morrison and Leslie F. Thompson. The figures of the key plans were partly adapted from Hölscher's *Excavation of Medinet Habu* and partly drawn by R. M. Engberg and H. Hanson.

I agree with the editor that he was justified in omitting large numbers of graffiti which were so fragmentary that they were, practically speaking, worthless for science and would have raised the price of the book considerably; I think that he could have gone even farther, perhaps, in this process of eliminating such valueless graffiti from the publication. Numerous inscriptions were discovered by Henry Leichter, Ibrahim Muhammad 'Abd er-Rahman, 'Ali 'Abd er-Rasul Muhammad, and others.

Coöperation among scholars is always praiseworthy, as can be gathered from the lines above; this also holds true especially for the preparation of this volume with its magnificent plates for the press, where such scholars as Dr. T. George Allen, Mr. and Mrs. Albert R. Hauser, Mr. Walter W. Romig, and Miss E. Stefanski laudably helped in the edition. The editor did well not to try any restorations in the plates; as such they properly belong in the text volume, for the publication of which we still hope.

The volume is arranged so that, first, in eleven figures on four pages, plans show the locations of the inscriptions; then follow the plates with graffiti in usual hieroglyphs and a plate of so-called enigmatic hieroglyphs; this latter most difficult type of text will be separately deciphered by the only living specialist, Canon Étienne Drioton, who has just become the Directeur général des antiquités Égyptiennes in Egypt. Plates 7-14 contain the hieratic, 15-91 the demotic, 92-102 the Coptic graffiti. As already mentioned we await their scientific treatment by the editor at some later date. The two Semitic inscriptions (two lines) are under the scientific care of Dr. Raymond A. Bowman. I may add that plates 98-100, very fragmentary decorations from a Coptic church, are colored and most beautifully reproduced; they are, as a matter of fact, not graffiti, but it was wise to include them in the publication before time destroys them com-

pletely; the church once occupied the second court of the temple of Ramses III. Regarding the discussion of the material, I do not want to encroach upon the editor, as I anticipate the treatment of the contents of the plates by the editor himself.

None of the published texts is of any particular scientific significance, as the editor himself states in the Introduction. One sympathizes with the editor because he and his collaborators were obliged to expend almost two years on material of comparatively little value for the field of these studies and because he devoted his labor to a thankless task through no fault of his own.

We are looking forward eagerly to a possible interpretation of these texts.

RUTH LESLA MICHEL

THE MUSIC OF THE SUMERIANS AND THEIR IMMEDIATE SUCCESSORS THE BABYLONIANS AND THE ASSYRIANS, by Francis W. Galpin. Pp. xv+110, pls. 12. Cambridge at the University Press; New York, The Macmillan Co., 1937. \$7.50.

Music has a charm of its own, but the history of the oldest music of the world presented in this volume by F. W. Galpin, Canon Emeritus of Chelmsford Cathedral, Honorary Freeman of the Worshipful Company of Musicians, a scholar well versed in the results of the last fifteen years' research in Western Asia, even familiar with strange and difficult cuneiform writing, will come as a revelation and a delightful surprise to many. This would be so, were it only for the plates illustrating instruments actually used in Mesopotamia before 3000 B.C., or his reconstructed score of the ancient hymn, The Creation of Man, with the original harp accompaniment of ca. 1600 B.C. But only the perusers of the book will appreciate the wealth of material accumulated in these pages, enriched by comparison with music and instruments of other countries, east and west, from China, India, Iran, to the shores of the Mediterranean lands. This marks a distinct advance on the musical histories of Engel and Virolleaud.

The first chapters are devoted to a critical identification of the instruments in their classical division into percussion, wind and stringed instruments. They form a complete orchestra, of drums, timbrels, rattles, flutes and pipes, horns and conch, harps, lyres, lutes and psaltries, among which the magnificent harps and lyres, and the

twin silver pipes from Ur deserve honorable mention.

No less illuminating are the chapters on scale and notation, on the appreciation of music, and on the racial element in music. According to Canon Galpin a scale of seven tones was an early invention of the Sumerians, and a notation derived from the 21 letters of the Aramaic alphabet was probably applied to the 21 strings of the larger harp. A famous cuneiform tablet KAR 1.4 in the Staatliches Museum in Berlin (ca. 800 B.C.), gives us in the central column the Sumerian Hymn on the Creation of Man, on the right the Assyrian translation, and on the left a cuneiform notation of the musical accompaniment. The same notation is found on a tablet from Sippar of ca. 1600 B.C.

Two minor studies of the heading of a drum, and of Nebuchadnezzar's orchestra complete this rich and welcome volume.

LEON LEGRAIN

UNIVERSITY MUSEUM
PHILADELPHIA

TEMPLE DOCUMENTS OF THE THIRD DYNASTY OF UR FROM UMMA, by *George Gotlob Hackman*. Babylonian Inscriptions in the Collection of James B. Nies, Yale University, Vol. V. Pp. xi+34, pls. 74. Yale University Press, 1937. \$5.

Scholars will welcome these good texts copied with care by Mr. Hackman. They are business documents from Umma in Lower Mesopotamia, dating from about 2200 B.C., when the Sumerian kings of Ur—Shulgi to Ibi-Sin—ruled the homeland in peace and prosperity. With two exceptions, the hundred and forty-six tablets here published have been selected from the collection left by Dr. J. B. Nies to Yale, and their publication is the successor of other volumes in the same series—and the forerunner of more.

Business texts are written in a technical language, and need no complete translation or transliteration, so long as the main terms are listed in clear analytical tables, together with a summary catalogue. The wise plan of Vol. IV has been followed here. The reader is assumed to be well trained in reading cuneiform signs. The indices will help him with proper names, names of deities, temples and buildings, fields, gardens and threshing floors, rivers and canals, cities and places, animals, birds and fishes, trees and plants, food and drink, containers and cult objects, tools and

implements, gates, titles of temple employees and names of temple offices.

Mr. Hackman, on the strength of the Oxford Chronological Prism and of the new list of kings from Susa published by V. Scheil, proposes to reduce to 48 the number of years of King Shulgi, apparently with reason.

We feel obliged to Yale for this sober and useful publication.

L. LEGRAIN

UNIVERSITY MUSEUM
PHILADELPHIA

EXCAVATIONS AT TEPE HISSAR, DAMGHAN, by *Erich F. Schmidt*. With an additional chapter on the Sasanian Building at Tepe Hissar, by Fiske Kimball. 177 illustrations, maps, plans, etc., and 79 pls. Published for the University Museum by the University of Pennsylvania Press, Philadelphia, 1937.

This handsome volume will be welcomed by students of Near Eastern archaeology for many reasons: the site is an important one, in which one might hope to find links between Transcaspia and Iran; the author's experience as an excavator covers a wide territory, including as it does Anatolia and southern Mesopotamia; and the report is full, methodically presented, and abundantly illustrated.

Some minor criticisms, however, must be made. To locate the illustrations referred to in the text, the reader must consult the elaborate catalogue at the back of the book for Plate or Figure number, which, it would seem, might as well have been given in the text. And the reader's eyes are often sorely tried by the building plans, numerals especially being sometimes undecipherable.

A more serious shortcoming is the absence of measurements of depth throughout the report. Neither in this nor in the previous report by Dr. Schmidt¹ are we given explicitly even the height of the tepe. From the sectional drawings (Figs. 18 and 19), which are on a very small scale, it would appear that the summit of the mound stood about 10 metres above plain level, and virgin soil (in some places) about two metres below plain level; and one may roughly estimate the thicknesses of the strata as: Hissar III, about 5 metres; Hissar II, about 2 metres; and Hissar I, about 3½ metres; but in this one must trust to the accuracy of the draughtsman. In no place does the text enlighten the reader further. The catalogue-index gives the

¹ *Museum Journal*, xxiii, 4, 1933.

depths of the graves, but almost never of objects outside the graves. There is thus an almost complete absence of stratigraphical data supporting the division into three periods.

These periods are now subdivided (presumably on typological grounds): III into A, B, and C, C being the latest; II into A and B; and I into A, B, and C. III A and II A are, as the author states, merely "buffer substrata," distinguished only by a mingling of the types above and below them. As is already well known from the earlier report, III (the highest stratum) is characterized by a gray burnished ware of unmistakable relationship to Tureng Tepe and Shah Tepe; II contains earlier pottery forms of the same ware; and I C and I B have a painted ware with Iranian motifs (goat, leopard, rows of birds) on a light brown or buff ground. I A, the lowest stratum, has a painted ware with simple geometric patterns on a dark brown or red-brown ground, which seems related to the "I A" of Rayy, and probably also to Anau I, since ware like Anau I is reported from below Rayy I A.

Despite the striking change, in Hissar II A, from a highly developed painted ware to unpainted gray with many new forms, Dr. Schmidt regards the succession of cultures at Hissar as continuous, and there are many signs which support this belief. Painted and gray wares are in many cases found in the same graves. The high hollow foot of Anau, found in Hissar I A, develops into the chalice and high pedestal forms and persists into III C, though only in the "brazier" or perforated cup.

Further evidence of continuity is afforded by the flat seals, which are of a simple geometrical design throughout the site. There is a monotonous uniformity in the architecture of all levels, except that in the lowest strata *chineh*, or packed mud, predominates, and in the upper strata brick becomes the common material. Sizes of brick are large throughout: from 47 x 23.5 x 10 cm. in Hissar I to 64 x 30 x 11.5 and larger in III. The mound seems to have been a habitation site from beginning to end, the only monumental architecture, if it can be so called, being the Burned Building of III C; this had a few irregularly placed buttresses and a rudimentary *livvan*-like entrance with a tower. Near the surface of the mound was found a single wall with stone foundations. A curious architectural feature, the "creep-hole," less than half a metre square, in the lower parts of walls, was found in I, II, and III. From top to

bottom of the tepe, also, the dead were buried under floors, in contracted posture, the only fundamental difference, besides the furniture, being in orientation.

This degree of homogeneity during two millennia is surprising, and invites close examination of the chronology. Dr. Schmidt has raised his date of 3000 B.C. (given in his first report) for the beginnings of Hissar, and justifiably; but he has now gone to the other extreme in suggesting that his I A "may actually extend into the fifth millennium." As appears in his schema (Fig. 168) this pushes Anau I back into the past where it stands alone, earlier than al-'Ubaid, which Dr. Schmidt, ignoring the contrary evidence of Tepe Giyan, places later than Susa I.

There can be little doubt of the correctness of Dr. Schmidt's correlation of Hissar I A and B with the I A and B of Rayy, though the Rayy ware has some distinctive qualities of its own; and it is also proper to link Hissar I B and C with Sialk I B and C, for some whole vessels from these two sites are virtually identical. Sialk I C lies directly under a stratum (Sialk II) in which was found a proto-Elamite tablet, said to be like those of Susa; also in Sialk II were two cylinder seals with a high-handled vase motif which is like that found on a seal-impression of Warka V, but is more like those on some seals from Susa, found in what were probably Susa II levels. On this evidence Dr. Schmidt places all of Hissar I prior to the Jemdet Nasr period, as he well may; and correlates Hissar II A, more doubtfully, with Billa VII, since both were periods of transition.

It is a pity that Dr. Schmidt slights Tepe Giyan, for it offers some interesting correlations and comparisons. Sherds from Giyan IV show the identical bearded goat, rows of leopards and birds, seen at Hissar and Sialk, and stray leopard sherds also appear in Giyan III and V. Giyan IV, moreover, shows the "bird-comb" and other motifs on many large jars, with strong affinities to Susa I and II, as can be clearly seen through links afforded by Kamterlan and Mirvali, sites lying midway between Susa and Giyan. And if we finally decide that the exasperating Susa II is of Jemdet Nasr date (and the "scarlet ware" of Dr. Frankfort's Tell Agrab seems to prove it) this also supports a Jemdet Nasr dating for Hissar II A, or, possibly, for Hissar I C.

When we come to Hissar II and III, the problem is more difficult, and Dr. Schmidt is commendably cautious. Consider, for instance, the

bidents and tridents. These highly distinctive implements, which seem culinary or sacrificial, rather than warlike (one from Hissar III has a ladle at one end), are found of iron as well as bronze in Necropole B of Sialk, which is dated by M. Ghirshman not earlier than 1200 B.C. Six of these were found, of copper, in the "Asterabad treasure" from Tureng Tepe, and in 1920 Prof. Rostovtzev¹ argued convincingly for Sumerian origins for this treasure and the similar finds in the North Caucasus. Since then the Royal Tombs of Ur have yielded the same forked implements and many other copper objects (vessels, socketed axes, etc.) which can be matched at the northern sites. Susa, from the Ville Royale, can show a bulbous mace head or decorative finial like those of Hissar III and Asterabad, from levels earlier than those of Ur III (dated by bricks of Gimil-Sin); and these and lower levels at Susa also show quantities of copper objects like those from the Royal Tombs and also those of the North. Furthermore, these Susa levels (and also the "Susa hoard" of the Acropole) are linked to Giyan IV both by their painted ware and their copper objects; and to knit all closer together, in Giyan IV we find a copper lance head with median ridge and hooked tang like those of Tureng Tepe and Hissar III A.

Giyan IV, then, seems to tie Hissar II-III rather closely to Hissar I, which would argue for a relatively short duration for the latter site, and would also in some degree explain the continuity of culture noted by Dr. Schmidt. It would also partly explain the enormous size of the bricks of Hissar III, which can be compared only with those of Gawra VIII (56 x 25 x 14 cm.) or with the *Patzen* of Warka V (50 x 25 x 8 up to 80 x 40 x 16 cm.) And it would make it easier to understand why, with three exceptions, only flat seals were found at Hissar. These three exceptions are cylinders from Hissar III C, which, on the excellent authority of Dr. Legrain, appear to be Mohenjodaro and Jemdet Nasr in style! There are even found in Hissar III C "medallion seals" with two faces, of copper, the prototype of which may be, perhaps, the "rondelle plate, très ancien type" of the lowest Giyan levels. These things may be said to prove almost too much for credence; but at least they make it difficult to accept the date which Dr. Heine-Geldern² upholds for

¹ *R. Arch.*, 5th ser., xii, 1920, p. 1; and *J. E. A.* vi, 1920, p. 4.

² *Bulletin of the Am. Inst. for Iranian Art and Arch.*, June, 1937.

Hissar III, 1200-1000 B.C. It may be remarked, in passing, that Dr. Heine-Geldern appears to ignore the Mesopotamian analogies completely.

All this is extremely discouraging for the typological dating of these cultures. It would appear that the Sumerian metallurgy (even revising to the utmost Woolley's dating of the Royal Tombs) must have arrived early and rapidly at a high stage of development, and that the types of armament were so satisfactory that they were preserved even to the Iron Age. And evidently the stamp seal is not restricted to primitive cul-

tures. Commendation should be given for the care with which (except for the omission of measurements already noted) the records have been kept and presented in this book, and for the exhaustive cataloguing. The account of the Sasanian Palace, the hints on field equipment, and the technological analyses are valuable; the last named will be especially useful when we have more such reports from other sites for comparison. It should be added, that the reader will want, besides this, the earlier report, which contains much that is not covered again in this one.

H. W. ELIOT

CAMBRIDGE, Mass.

HETHITER, CHURRITER UND ASSYRER, by Albrecht Goetze. Instituttet for sammenlignende Kulturforskning, Serie A, Vol. xvii. Pp. xv+194, 79 photographs, 5 maps. H. Aschehoug & Co., Oslo, 1936.

This short, orderly volume is a good introduction to an intricate problem: the march of history and the growth of civilization in the Near East in the second millennium B.C., or, more precisely, from the end of the First Babylonian Dynasty (Ham-murabi), about 1750, to the ascendancy of Assur, 1100-745 B.C. What new elements and racial movements in North Mesopotamia and Asia Minor, in Syria and Palestine, on the border highlands of Armenia and Persia, together with invasions of European tribes and Aegean sea people, made possible Assyrian supremacy in the first millennium B.C.? This is the question which Goetze tries to answer. His comprehensive picture is based on a thorough study of sources. His volume, written from Yale University, where he is now a professor, is nevertheless dedicated to his Scandinavian friends and sums up lectures delivered at Oslo in 1934.

Recent discoveries in Hittite lands—at Car-

chemish, Senjirli, Boghazkoy; in Syria—at Byblos and Ras Shamra; in Central Mesopotamia—at Tell Halaf; in Assyria—at Assur, Nineveh and Kerkuk; and in the northern districts of lakes Van and Urmia—have been cleverly utilized. Special attention has been paid to monuments—statues, stone reliefs and seals—as the best evidence in the notable absence of written documents during these troubled times.

This explains the position of Goetze on the delicate problem of the Hurrians. He accepts them on the strength of the Boghazkoy Hittite archives. Hittites, Mitanni kings, Cassites are Indo-Germans. Did they all come from Europe or from India with horses and wagons? This is not clear. In any case chariots were used in Sumer about 3000 B.C. But the Hurrians are not Indo-Germans. They are not Semites either, to judge by the scanty remains of their language. The Hurrian invasion in the early part of the second millennium is still a problem or a guess. Are they barbarians, like the Hyksos masters of Egypt, or native tribes akin to the mountain people of Van and Urmia—Urartu? Those worshippers of Teshup, Hepat and Kumarpi are probably a Caucasian race, as is shown by their agglutinative language.

Anyhow, races and invaders left their trace in the new political order that prevailed in Asia Minor after the last upheaval of 1200, when the Aegean people of the sea, together with the Kaesker and the Mushker in Phrygia, the Aramaeans on the Euphrates and in North Syria, the Phoenicians, the Hebrew-Canaanites and the Philistines down the coast, destroyed the old Hittite Empire and hemmed Egypt in the Nile valley. With Babylon weakened by Elamite invasion, the time was ripe for Assyrian expansion.

Assur, the champion of the Semitic, Sumer-Akkadian culture, using to its last day the cuneiform writing, shows in its aristocratic constitution, in its cruel code of laws, in its military organization, in its art, buildings and historical records, many traces of foreign elements, which lead back to Hurrians and Hittites.

The well selected illustrations will also prove a great help.

L. LEGRAIN

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SUBARTU, BEITRÄGE ZUR KULTURGESCHICHTE
UND VÖLKERKUNDE VORDERASIENS, by Arthur

Ungnad. Pp. xi+204. Walter de Gruyter & Co., Berlin and Leipzig, 1936. RM. 10.

Ungnad is the protagonist of the Subareans. They are the inhabitants of the land of Subartu (or Subar), which gives its title to the whole volume. We might almost call it an essay on Pan-subartism. Subartu is primarily Northern Mesopotamia, but it extends beyond the Tigris and Euphrates, from the Zagros to the Amanus, reaches Elam in the south, Ugarit on the Mediterranean, Urartu near Van in the northern highlands, and probably Al'Ubaid in the south, before the first Sumerian immigration. The center of Subartu is conveniently placed at Tell Halaf on the Habur (excavated by von Oppenheim). And Ungnad fervently hopes that renewed excavation of Fecherija hill, which marks the site of the capital city of the Mitanni kings, will one day bring to light the Subarean inscriptions and archives, as yet badly missing.

The trend of this abundantly documented research work is to show that the Sumerians were not the only or the first agent of civilization in Mesopotamia. Within the northern circle about Tell Halaf, a much older Subarean culture, parallel to the deepest levels at Nineveh and Arpachijeh, developed before Al'Ubaid and Uruk, and it was not even a Semitic culture. The Subareans were always considered as a foreign people by Sumerians, Akkadians, Babylonians, Assyrians and Persians. Semitic scribes have left us lists of Subarean words with translations.

For Ungnad the Subareans are the primitive Mesopotamians, an Armenoid, Caucasian race, *homo Tauricus*, and we learn a good deal about crooked noses, round skulls, pointed and receding foreheads. He sees them represented on the much discussed Tell Halaf reliefs, which, with Herzfeld, he dates in the third millennium. In the absence of inscriptions, the great title to originality of the Subareans is their painted pottery, found in the deepest levels over a large area extending from Asia Minor to Western Turkestan, and as far south as Warka. They were probably the first to mine copper in the Taurus and Armenia.

The antagonists of the Subareans are the recently discovered Hurrians, unknown before the deciphering of the Hittite archives of Boghazkoy. Their first appearance as a historical fact in Mesopotamia is found in the annals of King Mursil I, who in 1750 B.C. defeated Babylon, Aleppo and the Hurrians. The highlands of the Hurrians are probably identical with the Mitanni

of King Tushratta. This has given rise to the theory of a Hurrian invasion of North Mesopotamia after 2000 B.C. In the Hittite capital Hattusha (Boğazköy) they spoke the old Hattic language (hattili), very different from the later (Indogermanic) Hittite. But they also knew the *hurla*, apparently the Hurrian language. The scribes of Ugarit compiled lists of Hurrian words. Tushratta, Indogermanic lord of Mitanni, could write it. In addition to his Aryan gods, he worshipped Teshup and Hepet, the ancient gods of the land. And who were the ancient original inhabitants of the land, the Subareans or the Hurrians? That is the question.

Against the sponsors of the Hurrians, Goetze for example, Ungnad points to the curious fact that the whole Sumerian, Akkadian, Babylonian, Assyrian tradition ignores them, and knows only the Subareans. Subartu is more than a geographical denomination, as has been objected; it is also a political name during the time of Hammurabi, the Third Dynasty of Ur, and the early part of the third millennium, when the Hurrians were out of the question. Words, proper names and gods of the so-called Hurrians are sterling Subarean, and only as an anachronism can they be attributed to the Hurri before 2000 B.C. Hurru is for him an abstract name, meaning for the Hittites, "bond," union of kings of many races and languages. But below them the aboriginal race was the Subarean.

In the absence of original Subarean inscriptions, Ungnad in the second section of his volume has borrowed from Cuneiform, Hittite, El-Amarna and many other records, and has mustered an exhaustive list of all the known texts mentioning Subartu, and discussed them critically. Not in vain can he claim the interest of scholars in all fields, cuneiform, history, religion, archaeology and anthropology.

L. LEGRAIN

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BOĞAZKÖY. DIE KLEINFUNDE DER GRABUNGEN 1906-1912, by Kurt Bittel. Pp. ii+72, figs. 30, frontispiece and 42 pls. 60. Wissenschaftliche Veröffentlichung der Deutschen Orient-Gesellschaft. J. C. Hinrichs, Leipzig, 1937. RM. 48; bound 55.50.

The excavations at Boğazköy, conducted by H. Winckler, Th. Makridi and O. Puchstein between 1906 and 1912, have created the basis for all research in the cultures of ancient Anatolia.

By their results the Hittites, known before only indirectly from Egyptian and Assyrian sources, have become a historic reality. What invaluable information the archives of the Hittite kings have furnished, is very well known. The archaeological finds, of no less importance, have so far been unduly neglected. Only Puchstein's volume on the architecture has appeared. All the other finds of the expedition remained unpublished. The war and the post-war conditions prevented their being made known to the scientific world.

It is the more gratifying that after a delay of 25 years the publication has been resumed with the present volume. The author, Kurt Bittel, has qualified himself for the publication of the "Kleinfunde" (among them the highly important ceramics) by his own fieldwork at Boğazköy and his numerous contributions towards Anatolian archaeology.

The present volume is the first of a series that is planned. It is devoted to the Hittite period; a volume dealing with the later periods (of which the Phrygian is the most significant) is promised for the near future. The author has had the benefit of the results of his own excavations, which have provided us with a much clearer insight into the chronological sequence of Hittite pottery and with decisive arguments for dating Hittite art.

Sculptures (mostly known from previous publications), tools and weapons, ornaments, seals and the pottery—this the bulk of the finds—are dealt with in successive chapters. The book closes with a presentation of results. The archaeological description of the objects is clear and exhaustive, the plates are of excellent quality.

The sculptures are fully described and some new photographs of considerable interest are presented. Their contemporaneity with the Late Hittite Empire (1400-1200) is rightly stressed and some general remarks on the problem of Hittite art are added. In these the author criticizes my assumption of a relationship between the Boğazköy art and that of contemporaneous Northern Syria. He seems not to realize sufficiently that my assumption does not imply direct descent from the art of Tell Halaf. Nor have the individual features of the Hittite sculptures been denied by me and I have expressed the opinion that a new style (essential for any individual art) was at least in the making. I see no reason to change my position.

The terracotta bull, which is reconstructed from rather poor fragments with the help of better

preserved models, gives occasion for some remarks on the religious significance of the bull. The article of L. Malten in *Jahrb.* xlii, 1928, pp. 107-14 seems to be overlooked. Here and elsewhere (particularly on p. 32) reference is made to Cappadocian seal-cylinders. I have doubts as to whether any of them can be assigned to Anatolians. The natives of Cappadocia sealed with modest stamps of which Mrs. J. Lewy has presented examples on Plate 238 of her husband's *Tablettes Cappadociennes* 3, 3 (Musée du Louvre, Textes Cunéiformes XXI). The observation that the branch in the hand of the god No. 40 of the Yazilikaya procession confirms his identification with Telepinuš is very welcome.

The largest space, naturally enough, is devoted to the pottery. It is very deplorable that the circumstances under which the respective pieces were actually found in most cases are unknown. It is, therefore, the more fortunate, that the recent excavations have established the chronological sequence which makes us understand the development of the potter's art and permits us to utilize pottery for dating purposes. The scarcity of the painted Cappadocian ware in Boğazköy is a remarkable feature. Further investigation will decide whether the few specimens that are extant are imports, for the settlement to which they belong has not yet been located. The closing chapter "Ergebnisse" is open to some criticisms. The Hittitologists are accused on p. 58 of having caused confusion by calling the language of the great empire "Hittite." The author seems unaware of the fact that this name was suggested to the decipherers of the Boğazköy tablets not only by the Egyptian and Assyrian sources but also by the practice of the archaeologists who long since had spoken of "Hittite" monuments. It is unjust to blame the Hittitologists for a terminology for which they are not responsible.

What is much more significant, however, is the fact that the terminology of the philologists has, fortunately enough, made possible distinctions which archaeology has proved unable to establish. "Hittite" by mere terminology can very conveniently be distinguished from "Hattic." Should archaeologists prefer to reserve "Hittite" for the older, prehistoric, period, they would have to introduce the term "Nesian" (or "Kanesian," if they should follow Forrer) and to explain why the kingdom of Hatti belongs to this younger period.

Bittel discusses in some detail the question as to the time when the Indo-European element

among the Hittites entered Anatolia. He cannot deny that Labarnaš already was a leader of the invaders. He claims, however, the kings of Kuššar, Bithanaš and Anittaš, as Hattic; this necessitates considering the famous Anittaš tablet, which is written in Hittite, as a legendary source of later date. I cannot see any break either in tradition or in culture between the time of Labarnaš and that of Anittaš. The evidence of the proper names is misleading; none of the Hittite kings down to 1200 bore an Indo-European name. It seems to me that natives and invaders very early had established such intimate relations that the Indo-European rulers had long since lived themselves into the rôle of Hattic dynasts. This is a third possibility which may be contrasted with Bittel's alternative (p. 63) and seems much more likely.

The impossibility of explaining the Hittite culture of the second millennium by the traditions of the Indo-European immigrants is a negative result which everybody will endorse.

An important and indispensable book.

ALBRECHT GOETZE

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KHORSABAD. PART 1. EXCAVATIONS IN THE PALACE AND AT A CITY GATE, by Gordon Loud. With chapters by Henri Frankfort and Thorkild Jacobsen. The University of Chicago. Oriental Institute Publications. Vol. XXXVIII. Pp. xv+133, 3 pls. in color, 129 figs. in text. The University of Chicago Press, 1937. \$10.

The preliminary reports of the excavations at Khorsabad published as *Oriental Institute Communications* are followed by this volume, which is apparently to be regarded as the final publication. It is, therefore, well provided with illustrations, plans, and an accurate descriptive text, the latter enlivened by such fascinating stories as the transports of the colossal sculptured bulls to the river. The ruins dealt with are the city gate 7, rooms in the northern part of the palace rooms adjoining the great courtyard, and parts of the temple complex in the south. The results show that the resumption of work at Khorsabad, excavated by Place eighty years ago, was fully justified. It is true that the exactness of Place's work has been proved in many points; a great number of rectifications could, nevertheless, be made, and valuable reliefs could be recovered.

Given the well known quality of work done by the Oriental Institute, the reviewer contents

himself with enumerating some of the more important results: gate 7 was blocked before it was finished, inasmuch as it was not needed by the small population which stayed on after the removal of the capital back to Nineveh; ample remains of painted plaster decorations came to light; evidence was found that the reliefs were carved after they had been set up in the walls, not previously in a workshop; an optical illusion was used in one of the friezes to make the king appear as if standing on a higher ground than a procession approaching him; a large room formerly believed to be a courtyard turned out to be a throne room. There is a niche in the centre of the long side and opposite the chief entrance, but it does not indicate the place of the throne as normally in southern Babylonia, the throne being located on one of the short sides. Some parts of the palace were re-occupied long after the abandonment of the town. The deities of the temples could be identified by means of inscriptions discovered on the thresholds; they are Sin, Adad, Ninurta, Ea, Ningal and Shamash; valuable new evidence was found concerning the decoration of the façades of this temple with half columns, glazed brick tableaux, statues and sacred "trees." Finally, an interesting feature is found in the elevated platforms for the cult image in the temples of Sin and Adad.

VALENTIN MÜLLER

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GREEK AND ROMAN NAVAL WARFARE: A Study of Strategy, Tactics, and Ship Design from Salamis (480 B.C.) to Actium (31 B.C.), by *William Ledyard Rodgers*, Vice Admiral, U. S. Navy (Retired). Pp. xv+555, pls. 14, 19 figs. in text, 28 maps. United States Naval Institute, Annapolis, Maryland; B. F. Stevens & Brown, Ltd., London, 1937. \$6.00.

Years ago I marveled at the frequency with which Greek and Roman historians compare fights at sea to battles on land. Not all of them could have realized that the methods of warfare by land were normal upon the sea and, in fact, almost inevitable. Sea tactics evolved from land tactics as surely as did the automobile from a buggy or a carriage. It is possible to find in brief compass summaries of the contributions of the classical nations to naval tactics and strategy, but nowhere is the evolution of naval tactics from those on land more clearly traced than in Vice Admiral Rodgers' *Greek and Roman Naval War-*

fare. We are still further indebted to our author because he shows the close relations that exist between politics, lanes of commerce, and naval activities.

The second chapter of the book contains an account of the Persian army's manoeuvres against Athens in 490 B.C. I shall quote the author's reasons (p. 27) for the apparent anomaly involved in introducing a discussion of land operations into a work on naval warfare: "This chapter has described the land fight at Marathon for two reasons, first because naval warfare in early times was largely an affair of landing and raiding for booty, as in this case; and, secondly, because the tactics of land fighting developed before their principles were applied in fleet battles. The tactics of Marathon became the norm of naval battle for the next generation, after which tactical novelties found a basis in improved ships handled by skilful seamen who were also thorough drill masters. Marathon taught the Greeks that successful land battle against Asiatics would be through the spear fight against missiles and the refusal of envelopment. We shall see the development of this idea in naval warfare as we go on."

After the Persian menace had been warded off, the Athenians continued to be the best seamen of Greece. A method of counteracting their manoeuvring skill was devised by a man whom Grote does not even mention. Of him Vice Admiral Rodgers says: "Polyanthes deserves a high place in the history of naval tactics which he has not received" (p. 162). He strengthened the prows of his ships, and at the battle off the coast of Erineus (Thuc., 7, 34) he forced the Athenians to fight in closed waters (pp. 162-163). Our author remarks: "The new structural arrangement seems to have been promptly reported to Syracuse, where the conditions favored its employment by the besieged" (p. 163). This is a plausible theory, and is preferable to the guarded suggestion of L. A. Stella, *Italia antica sul mare*, Milan, 1930, p. 160, that the Syracusans may have strengthened the bows of their ships as a result of experiences in wars with the Etruscans, who, as vase-paintings show, both attacked the enemy with the prow and defended themselves with it.

No great naval battle was fought during the Second Punic War, yet pages 308-376 are devoted to this conflict in order "to show how the Roman sea power enabled the Republic to withstand the terrible defeats by land that its great enemy inflicted on it" (p. 323). This chapter especially

will reward careful study. It seems to me, however, that F. W. Clark's thesis, *The Influence of Sea Power on the History of the Roman Republic*, Menasha, 1915, deserves both mention and use in such a discussion.

The author achieves his aims, and the volume is uniformly interesting and illuminating. The method of presentation is admirably adapted to the ends in view. The numerous maps are a great aid to the reader.

If there is one general criticism to be advanced against the book, it is that not enough use has been made of the investigations of classical scholars. I find not a single reference to the great classical encyclopaedias, which are valuable for bibliography as well as for subject matter. In an Appendix on the types of rowing ships (pp. 29-53) there are listed nine works, but not one of them is dated later than 1895. Much water has flowed by the mill since these authors wrote. It would be hard to find a branch of classical studies which does not periodically need restatement in the light of new contributions. Classical journals were not searched for material. An important work in *Klio* (Beiheft XXXII, N. F., Heft 19) is "Studien zur Geschichte des antiken Seewesens" by August Köster, who comes of a seafaring family and is himself a seaman. I should like to have a naval man's estimate of his chronology of fleet movements just before the battle of Artemisium (pp. 54-80). He also gives very plausible reasons for the ineffectiveness of the Persian fleet (pp. 97-113). No one who has read his incisive comments on the tactics of Phormio in the battle with the Corinthians off Naupactus (pp. 81-96) could fail to be influenced by them.

In W. W. Tarn's book, *Hellenistic Military and Naval Developments* (Cambridge, 1930) there is an informative chapter called "Siege Warfare and Naval Warfare" (pp. 101-152). It is worthy of study.

Like most other scholarly books, this one is not free from blemishes. The spelling "Bosphorus" (p. 13 *et alibi*) has nothing to recommend it. The presence of the *h* destroys our long-cherished tradition of the cow's ford. Classicists prefer "Messina" to "Messana." Among the misspellings and misprints are "Archaemenes" (p. 77), "Athenean" (p. 118), "Curictae" (p. 446), "mari" for "mare" (p. xiv), "fifteenth" (p. 20), "mutined" (p. 444), "Schlacten" (p. 535), and "millenium" (p. 8).

Aside from the spelling of proper names the

book would have profited from a careful reading by a classical scholar. We are told that the tablet commemorating the victory of Duilius "has recently been discovered in Rome" (p. 277). The date of Jason's expedition in search of the Golden Fleece is definitely said to be a generation earlier than the time of the *Iliad* (p. 8). Fortunately such statements do not affect the author's arguments.

Before the World War comparatively few civilians could have realized what a complex thing war is and how many ramifications and after-effects it has. As a result of our experiences and sufferings we are now much better equipped to understand and to appreciate Vice Admiral Rodgers' enlightening book. Since the basic principles of naval warfare were evolved on the inland sea upon which the Greeks and the Romans fought, the volume is worthy of study by those who have the responsibility of planning national defense. I hope that the book receives the cordial welcome it deserves.

EUGENE S. McCARTNEY

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SIGILLATE POTTERY OF THE ROMAN EMPIRE, by Alice Wilson Frothingham. Pp. xxx + 61, pls. 38. Hispanic Society of America, Notes and Monographs, Catalogue Series, 1937. \$1.00.

Under this title is listed and discussed the sigillata from Spain in the Hispanic Society's museum, chiefly excavated in 1898 at Itálica by Mr. Huntington. The collection includes several decorated or signed Arretine sherds (only one signature *in planita pedis*), some material from South Gaul, and another group which the author attributes to Central Gaul. In view of the general absence in the United States of material on sigillata found in Spain, this is an especially welcome publication, and, in spite of what follows below, Mrs. Frothingham is to be congratulated on her handling of the somewhat intricate material, and the Society bespeaks the thanks of Roman archaeologists for producing this elegant and valuable catalogue.

One cannot, however, give the book an unqualified recommendation. The introduction, for instance, contributes nothing new except an evaluation of the collection, and this I believe to be founded on a fundamental error. Other than that it merely restates old material, sometimes with serious inaccuracies and sometimes from obsolete sources. A very regrettable omission is the absence of any archaeological context from the excavations.

tions themselves. The bibliography is a helpful but incomplete guide to the study of Spanish sigillata. No attempt is made to attribute decorated Arretine fragments: No. E383 is probably by *P. Cornelius* and E375 is some of his baroque work (Chase, *Loeb Coll.* 423 with 424, and Oxé in *Schumacher Festschrift*); E379 is characteristic of *Naevius* (Oxé, *Arret. Reliefgef. vom Rhein*, No. 67 and Dragendorff, *Bonn. Jahrb.* xvi, Pl. IV); E382 shows characteristics of *M. Perennius Bargathes*' work, frequently illustrated; and E376 much resembles Déchelette, *Les Vases cér. ornés de la Gaule rom.* I, Fig. 6, Walters, *Cat. of the Rom. Pottery in the Brit. Mus.*, Fig. 13, and Oxé, *ibid.*, Pl. IV, 11 and p. 46, "die Art der Verzierung deutet auf *Quartio Rasini* und auf die erste Zeit der Ara Pacis, um 10 vor Chr. Geb." Among the signatures I suggest emending [*Primus?*] *Saufei* to *(P)h(i)lomusus Saufei* (although Mrs. Frothingham, after kindly reexamining the piece, does not concur), *C. Telli Man()* to *C. Tetti Prin(cipis)*, *Ate[r?]* to *Atei* and *Of Mari* to *Of Mart[ialis]*. Other stamps would probably respond to a discreet use of acid.

An interesting and important question worthy of detailed treatment is raised by the author's position on the absence of Spanish-made sigillata from the collection. On pp. 33-49 she assigns thirty-one bowls and fragments to the Central Gaulish potteries, chiefly Lezoux. Most of these are from the excavations at Itálica, but some were separately acquired from other sources. The signatures represented are *OCT MA·O* (thrice from Itálica), *FLACCI F* or the like (one each from Itálica and Villafranca de los Barros), *FIRMI·TRI* (twice from Itálica), *PATRAT F* or the like (four times from Itálica, including one *PA·TER·ATI F*; the author identifies him with *Pateratus*, a Hadrianic-Antonine potter of Lezoux, who is not attested for any of the shapes at Itálica and who is more careful with the orthography of his name: Oswald, *Index*, p. 230), *EX·OF·LVCRIITI FI* [-FE-A.W.F.] (provenance not given), *OF ACCVNICI* (once from Itálica), *SELIESI·FE* (once from Villafranca de los Barros), and others less legible. Of these names only *Pateratus* occurs in Oswald's *Index*, and I question whether even this name represents Oswald's Lezoux potter, because (1) it is always recorded by Oswald without interpunctuation, (2) it may be related to the three signatures *Patrat F* with which it was found, which are certainly not Gaulish, and (3) there are reported from Solsona three signatures *TER*

PATER on local ware (Serra Vilaró, *Mem. Junta Sup. de Excav. y Antig.*, num. gral. 63, 1923-24) which, in spite of their obscurity, are suggestive as parallels to *PA·TER·ATI F*. It is inconceivable that four or five separate potters of Lezoux should have eluded expert notice throughout the Roman Empire only to appear suddenly represented as much as four times apiece in the same chance plot of ground in Spain! One occurrence of one such name would give cause to raise the eyebrows — here are four or five thickly concentrated. Further, some of these names are attested elsewhere in Spain (Frothingham, pp. xxviii, xxx: add *C.I.L.* II, 4970, 270 *EX·OF·LV·FL* [Tarragona], which may suggest the correct form of the Itálica example; *ibid.* 197, *FIRMI·TRI*; *ibid.* 198, *FLACCI* [Tarragona]: Monsalud, *Bol. de la Acad. de la Hist.* L, 1907, pp. 460-62, *FLACCI* and *EXOFFLAC*, both decorated [Villafranca]), but nowhere else as far as I know. There is no question that these vessels at the Hispanic Society were made in Spain, and some of them were very possibly made at Itálica itself.

Confirmation of this view is found in the signature from Villafranca, *SELIESI·FE*. Two variants are cited from Ecija (*C.I.L.* II, Suppl. 6257, 178), and Monsalud, same series XXXI, 1897, p. 52, gives four more from Villafranca itself, properly pointing out that the stamp strongly suggests the town of Sellium near Leiria. In passing, he records a striking concentration of stamps *OF·SABINI* (or the like) from Almendralejo; I would suggest that in spite of the Gaulish homonymous potters, these also are locally made. In the same series XXXIV, 1899, p. 59, the same author also notes *EX·OF·TLS* from Alcalá de Henares, furnishing a parallel to the formula *EX·OF·LVCRIITI·FI*, which is unusual in Gaul. See also *EXOFFLAC* above, and *Fouilles de Belo II*, p. 174 *OXOFNO sic.*

Passing now to the shapes, we find *OCT·MA·O* *EX·OF·LVCRIITI·FI* and *OF ACCVNICI* on a shape derived from Dragendorff's Form 18, but without any moulded lip, with the rising and spreading side unsoftened by any bulge, and with a rounded moulding internally between the side and bottom. This shape is unknown to Oswald and Pryce (to seek no further), but it is illustrated by Serra Vilaró in "Cerámica in Abella, Primer Taller de 'Terra Sigillata' descubierto en España" (*Mem. Junta Sup. de Excav. y Antig.*, num. gral. 73, 1924-25), Fig. 9 (unsigned), and it is presumably a local shape at Abella and a Spanish

shape—not to be too precise at present—at Itálica. However, OCT·MA·O appears at Itálica also on Dragendorff's Form 27, which was very popular in Gaul and far outnumbers any other at Itálica. There is thus a presumption that Form 27 was also Spanish-made, reinforced by its appearance at Solsona (Serra Vilaró, same series, No. 63, 1923-24, Fig. 10, Nos. 1, 3, 4). Comparison of the Solsona and Itálica (esp. Pl. XXX) varieties of this form with those of Oswald-Pryce from Gaul (*Terra Sigillata*, Pl. XLIX) sometimes shows an absence of the characteristic Gaulish lip-moulding from the former, and an apparent tendency away from the sharp constriction of the sides. Itálica stamps on this shape are OCT·MA·O twice, FLACCI·F, FIRMI·TRI, PATRAT·F or the like thrice, FO . . ., two illegible, and one unsigned. FIRMI·TRI also appears on what seems to be an orthodox Form 18 (Pl. XXVI); and FLACCI·O (FLACCIAO ?), O·VVRI, SELIESI·FE, and two illegible marks appear on variants of Forms 35 and 36 with barbotine leaves on the rims; two more are anepigraphic. Finally, Form 46 is represented by two anepigraphic cups and one signed PATRAT·F. In sum, Forms 18, a variant of 18, 27, 35, 36 and 46 were made in Spain and are represented in the Hispanic Society's collection.

The date may be approximately determined by a graffito 9VP on the Form 46 of *Patrat F*, and repeated in the same collection on a South Gaulish dish signed FLAVINI. This potter's work is comparatively rare and is assigned to the first century by Oswald, *Index*; within this frame (probably the second half) or later, the Spanish sigillata of Itálica fits.

With every legibly signed piece in the collection now removed from a Central Gaulish provenance, the attribution becomes more than dubious for the remainder. I venture to think that *instead of* importing from Lezoux, the Spaniards made their own pottery; it is noteworthy that very little Central Gaulish ware reached Italy, although there are many South Gaulish signatures in the Italian volumes of the *Corpus* and elsewhere.

Among the decorated ware there is one bowl from Mérida (Pl. XII) and a fragment from Itálica (Pl. XIII). The author wonders whether these may be Spanish on the ground of resemblances to the local wares of Solsona and Abella (p. xxix), but finally attributes them to La Graufesenque. There can be no doubt that these two are genuine Spanish; cf. Serra Vilaró, *Solsona*,

Pls. VII ff., and especially XI, 4. Less certain are the origins of E277, an unsigned complete bowl of unrecorded provenance, close to Form 29 (Mrs. Frothingham says Hermet Type 9), but varying from it in some of the most characteristic criteria. The author assigns this bowl to "Gaul, probably Lezoux," which may be correct, but its whole style is not what one would expect from that source. Exactly the same is true of E276 and E284, a pair of Déchelette Form 67, decorated in *barbotine* only (except for some horizontal lines hardly to be dignified with the name of mouldings). Until better evidence for *barbotine* decoration on this comparatively rare form is available, I think the origins of these two instances should remain an open question. And finally there is the very interesting urn E371, also of unrecorded provenance, illustrated on Pl. VIII and the colored frontispiece. The author calls this Hermet Type 7, which is doubtless as good a name for it as anything else in spite of the fact that its upper half is concave while the typical form is convex, and in spite of several other variations, of which I would note particularly the glaze on the interior surface (Mrs. Frothingham, by letter), contrasting with Hermet's explicit statement on this type "l'intérieur n'est jamais verni." Unfortunately no detailed drawings of the decorative elements are supplied, so that a reliable comparison with Hermet's Pl. 98, 1-11 is impossible, but the usual decoration of Hermet's type as found at La Graufesenque seems different from that of the example before us. We must remember too that Hermet's Type 7 is extremely rare, having been quite unknown until his publication in 1934; it is hardly likely that it penetrated to Spain only. All in all, the decorated ware includes so few pieces which are truly characteristic of South or Central Gaul, and so many which are individually a little off the standard, that cumulatively they support the thought already prompted by the plain ware—that a good proportion of them are of Spanish origin.

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ASPECTI DELLA MORTE NELLE ISCRIZIONI SEPOLCRALI DELL' IMPERO ROMANO, by Angelo Brelich. Dissertationes Pannonicae, Ser. I, Fasc. 7. Pp. 88. Budapest, Istituto di numismatica e di archeologia dell' università Pietro Pazmany, 1937. Pengö 8.

In this well documented monograph the themes

of Latin epitaphs are grouped so as to illustrate five points of view toward death. They may be summed up as follows: (1) Death as an evil, equivalent to nonentity or something worse. (2) Chthonic, phallic and Dionysiac themes, return to earth, non-individual or vegetative immortality. (3) Resignation, or welcome of deliverance from evils, Epicureanism and Cynicism. (4) Deification and cult of the dead. (5) The immortality of the soul in paradise, the sky, and the stars.

In general the themes are well handled, although there is a natural failure always to keep these complex strands of thought separate. More important than this, however, is the author's failure to adhere to his own principle that popular belief is independent of metaphysical mythology. Instead, he gives much more consideration to just such a background than to the literature of Greece and Rome, and the inscriptions of Greece, from which it has been shown that Latin epigraphic poets so largely drew; and if scholars in the past have perhaps gone too far in their search for literary borrowings, it does not mend matters to treat all expressions on epitaphs as if they were original statements founded on deep conviction. For the theme that in death the soul goes skyward while the body rejoins the earth, one Egyptian parallel is quoted (p. 81); but it is a commonplace in Greek epigraphy, and in ancient as well as modern literature.

The subject matter of the second chapter rather tends to set the fancy free, and sometimes the author is led far from his subject matter and his evidence. Certainly, not all allusions to flowers on the grave, or to the luxuriant vegetation surrounding it, bring us "alla sfera dionisiaca" (p. 42), nor need a decorative phrase like *filio melle dulciori* (*C.I.L.* 6, 13148) be explained in connection with the mythological symbolism of the bee (pp. 43-44). Phrases like *Musarum semper amator* (*C.E.* 481) cannot be used to support the proposition that "chi vuol comprendere l'apoteosi del morto, deve tener presente la relazione dell'uomo vivo con un dio" (p. 74). These sepulchral poems are literary efforts, and like most second-rate poetry they incline toward ornateness; a clear awareness of literary background would correct this lack of perspective. It is a pity that such flights of fancy must encroach upon the solid work presented in other parts of the book, especially the well written and sensible first chapter.

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MONUMENTI DELLA Pittura Antica Scoperti in Italia. SEZIONE TERZA, LA Pittura Ellenistico-Romana. ROMA, FASC. I. LE Pitture DELLA "CASA DEI GRIFI" (PALATINO), descritte da Giulio Emanuele Rizzo (con note topografiche di A. Bartoli). Pp. 9-30, pls. VI-3 in color, figs. in text, 30.

Scholars familiar with Professor Rizzo's work, *La Pittura Ellenistico-Romana* (1929), an authoritative study of Graeco-Roman painting and the best treatise in this field at present, will welcome enthusiastically the splendid fascicles now appearing in *Monumenti della Pittura Antica Scoperti in Italia*. They mark a new era in the scientific reproduction of ancient decorative wall painting in color plates and reveal well the painstaking efforts expended by the author to produce this perfection. One need only compare the cold lithographs of Mau, hitherto our best material for the study of the decorative styles, to realize the tremendous step forward. And no less in the text, the sound presentation of evidence and the measured judgments contrast with some of the aesthetic ebullience and subjective deductions of the past.

Of this series of the *Monumenti* three fascicles of Part III (Hellenistic-Roman Painting) have already appeared: *Le Pitture della "Casa dei Gifi,"* *Le Pitture dell'Aula Isiaca di Caligola* and *Casa di Livia*. This review is concerned with the first fascicle only. Students of painting will await with eagerness the future folios, devoted to paintings under the triclinium (Fasc. IV), and to paintings of which we have only reproductions executed in the eighteenth century (Fasc. V). Promised for the near future are fascicles of Part I (*Pittura Etrusca*): *Le Pitture delle Tombe dei Vasi dipinti e delle Leonesse a Tarquinii*, per Pericle Ducati; *Le Pitture della "Casa del Citarista,"* per Olga Elia and *Le Pitture della Tomba della Caccia e della Pesca a Tarquinii*, per Pietro Romanelli.

The present publication offers material hitherto unpublished—buildings, paintings, mosaics and stuccoes—recovered some years ago under the Domus Flavia on the Palatine hill in Rome. Unfortunately most of the information derived from movable objects brought to light at the time when the structures were excavated in 1917 under the supervision of Commendatore Boni has in some strange way disappeared since Boni's death, so that one must rely upon the material and construction of the walls, the style of the mosaics, the superposition of architectural elements and com-

parisons with analogous material, in order to arrive at a satisfactory chronological estimate of the monuments in question.

The "House of the Griffins," discovered under the Lararium of Domitian's Palace, is a two-storied house of seven rooms, opening on an atrium or *Oecus Corinthius*. It is, as the author clearly shows, a monument of the late Republican Age. It was built irregular and rounded bits of tufa, in a sort of quasi *opus incertum*, not *reticulatum*. Its tessellated mosaics, mostly in black and white, include one with an *emblema* in *opus sectile*, made of cubes seen in perspective. This *emblema* has its closest analogies in a pavement from the temple of Apollo at Pompeii, dating before the end of the second century and in a richer one from the house of the consul Attalos at Pergamon, which must have been laid down before the annexation of Pergamon to the Roman Empire in 133 B.C.

The importance of the "House of the Griffins" lies in the fact that we have represented here on various walls of the same house the two earliest phases of the second style of decorative wall painting. The walls are painted with a rigidly architectonic system of decoration—the pictorial translation of the plastic form of the first style. The decorative system presents the usual structural features: plinth, podium, orthostates and cornice. The decoration of some walls is entirely flat, in the surface plane. On others, however, as in the large cubiculum, one finds the use of perspective to enlarge space and to produce a recession of the walls behind the columns. We thus have represented here the first and second phases of the so-called architectonic style described by Vitruvius (VII, 5): imitation of various revetments of marble and the reproduction of architectural forms, seen in the projecting pedestals and columns and in the coffers and epistyle. There is no trace as yet of the prospect views of Vitruvius' third phase or of the megalography of the fourth. The paintings thus supplement Delbrück's work on the second style, offering us more complete and better preserved examples of the second style in its oldest phase—and from Rome, where the style is older than at Pompeii. This is evident from an examination of the "Casa del Labirinto" at Pompeii, one of the oldest examples of the second style, where rigidly architectonic decoration is found, enlivened at times by figures of birds, Erotes and satyrs. None of these ornamental figures appears in the severe decoration of the "House of the Griffins."

The second style at Pompeii and in the Vesuvian villas is always later in origin, more advanced in style and derived from Rome.

The Room of the Griffins, which gives the house its name, is decorated in the lunette with plastic griffins in stucco, heraldically placed against a red ground on either side of a calyx of acanthus leaves, with long volute-like stems ending in flowers. The nearest parallel to the design is to be found on the silver krater from Hildesheim. Both artists seem to have elaborated a traditional theme of Graeco-Ionic art, which was to have much influence in later Rome.

Most important is Rizzo's insistence on a date earlier than 80 B.C. for the beginning of the second style. Sulla died in 78, and even if the second style was in use at Pompeii around the year 80 it is logical to believe that it was introduced into Rome some time before, perhaps in the last decades of the second century. Interesting and convincing is his identification of the cubes seen in perspective with the *scutulae* of Vitruvius (VII, 4) and of the scale-like pattern with the *opus pavonaceum* of Pliny (*Nat. Hist.*); his discussion of the use on the walls of "painted mosaic" designs, of which the cubes seen in perspective are derived from the East. The wall decorations copy real architecture and the origin of many architectural elements is traced, such as types of capitals, derived at times from the Hellenistic East, at times from Magna Graecia (Tarentum).

The importance of the "House of the Griffins" for the history of the second style of decorative painting cannot be overemphasized. The rôle of Alexandria in passing on motives from the East, discussed by Rizzo in his earlier work, is further evident in new excavations conducted at Moustafa Pacha and at Hermopolis. Our widening knowledge of the decorative styles of wall painting in the first and second styles is increased by the contribution of this book, written by a master in the field, with no overestimation of the evidence. The book is essential for libraries and for students of painting.

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GESCHICHTLICHE VORAUSSETZUNGEN DER ENTSTEHUNG EINER CHRISTLICHEN KUNST (Vortrag, gehalten in der Historischen und antiquarischen Gesellschaft zu Basel), by Werner Weisbach. Haus zum Falken, Basel, 1937. 2 frs.

A useful summary of the conditions surround-

ing the genesis of Christian art. The author recognizes under the term an art that reveals not only Christian content but Christian form,—an art displaying the three elements *numinosum, tremendum, fascinosum*, which Otto's book *Das Heilige* postulates as necessary to the truly religious phenomenon. Aniconic by its Semitic origins, the new faith was driven to artistic expression by the Hellenistic environment in which it spread. Sepulchral also in its beginnings, which according to the newer dating of the frescoes in the Roman catacombs cannot be earlier than ca. 200, it devotes its first efforts to expression by various symbols of the concept of deliverance, in forms at first Hellenistic, which only take on a definite Christian style and iconography after the Peace of the Church. In this transformation the protection of the imperial court is of great importance, since the new forms are permeated with imperial motifs and conceived in imperial magnificence, a trend that was also aided not only by the desire, manifest in all religious art, to beautify the object of devotion, but also by apocalyptic visions of heavenly splendor. The approximation of spiritual to Augustan concepts is well exemplified by the Eusebius' figuring of Constantine, at the Council of Nicaea, as an "angel," and by the court apparel given to the sacred personages when depicted in mosaics and ivories. Christian art was indeed formed in the period whose paramount quest, as Delbrueck has put it, was the visualization of the State. Gestures and attitudes are assumed by the sacred persons on the model of the ceremonial of the court; the antique symbols of triumph, wreath and palm, throne, diadem, and purple, are bestowed upon Christ and His heavenly entourage in emulation of the *triumphalia* of Byzantium. The *majestas* is the epitome of such assimilation, with its eschatological significance provided by the apocalyptic Beasts, the Elders, and the lambs. To this transformation the author would also ascribe the emergence of the bearded type of Christ and the appearance of the Passion-cycle on the sarcophagi "in the second quarter of the fourth century." He emphasizes, as illustrating the arrival of Christian *form* as well as content, the gradual change of the Hellenistic ideal to an ascetic type, involving a shift to age and emaciation, a loss of plastic weight, with an increase in feeling for line. The same spiritualizing of the materialistic Hellenistic tradition is cited as cause for the rise of a decorative rather than representational principle

of composition, the two-dimensionalizing of space, and symbolic scale. This "hieratic" style is not to be attributed solely to Oriental sources, but to the genius of Christianity as well. It is with such "hieratic" style, according to Weisbach, that real Christian art begins, and it is an error to judge it retrospectively, in this its really initial phase, as a mere decadent continuation of the antique. Nor are the Church's triumph, imperial favor, the formulation of dogma to be considered sufficient sources of the hieratic style; they are rather antecedent conditions forming and conditioning an evolution, the *fons et origo* of which was the faith itself.

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DAS BOOTGRÄBERFELD VON TUNA IN ALSIKE, UPPLAND, by *Ture J. Arne* (Kungl. Vitterhetshistorie och Antikvitets Akademien). Pp. 81, pls. 33. Stockholm; im Verlag der Akademie, 1934. 15 Kr.

The exhibition of the art of the Dark Ages, held this year in Worcester, has shown clearly that the major problem of the Dark Ages lies in the development of the art of the migrating tribes and in their reception of Classical art. In spite of extensive study of the art of the migrating tribes there is still much that remains uncertain in the dating and in the relations of artistic styles and cultures of Central and Northern Europe in the first millennium A.D. This is true even of so well explored a field as Scandinavian archaeology. Here the problem of the so-called Vendel period, intervening between the Migration period and the Viking age, has proved exceedingly absorbing for archaeologists. Archaeological data as well as literary tradition tend to show that for historical and artistic significance this period was second to none in early Scandinavian history (cf. P. Paulsen, *22. Bericht der Röm. Germ. Kommission*, 1932, pp. 216 ff.). Uppland appears to have been the leading region of Sweden at that time. In the *Guta Saga* it is related that the Svear who inhabited that region imposed their supremacy on the important island of Gotland (B. Nerman, *Die Völkerwanderungszeit Gotlands*, Stockholm, 1935, p. 129). The spectacular finds of the cemetery at Vendel attest the great wealth of the princes of Uppland. It is in this cemetery, too, that the new rite of ship burial makes its first appearance in historical Sweden. A further achievement of the Vendel period, again exemplified best by the helmets

from Vendel along with a contemporary group of relief-slabs (*Bildstenar*) of Gotland, is the creation of a figurative style of human representations (cf. H. Stolpe and T. J. Arne, *Nécropole de Vendel*, Stockholm, 1927, pls. V, 1-2, XLI, 1-7; E. Seaver, *J. Roosval den 29. Augusti*, Stockholm, 1929, pp. 109 ff.; S. Lindqvist, "Gotlands Bildstenar", *Rig* vi, 1933, pp. 97 ff.). The importance of this epoch in decorative art is best represented by Salin's Second and Third Styles (H. Shetelig and H. Falk, *Scandinavian Archaeology*, Oxford, 1937, pp. 294 ff.). While the general character of this civilization is sufficiently known from the publication of the cemetery of Vendel and of the related finds of Walsgärde (Preliminary report by S. Lindqvist and G. Arvidsson, *Acta Archaeologica* iii, 1932, pp. 21 ff., 232 ff.; the corresponding material of Gotland is being prepared for publication by B. Nerman), the precise chronology of the Vendel period and its relations to the preceding Migration and the following Viking period need investigation. These problems receive much light from T. J. Arne's publication of the cemetery of Tuna in Uppland. Thus the transition from the Migration period to the Vendel period is illuminated by the discovery of an inhumation burial of the late sixth century, so far the earliest that has been found associated with ship burials in Sweden (pp. 50, 75). The transition from the Vendel period to the Viking Age proper receives much light from the earlier ship burials at Tuna (No. "9898" and IV) which confirm the continuity of this rite from the seventh to the eleventh century. In addition, the first of these tombs, which contained Arabic coins from 708 to 785 A.D., offers a new opportunity to determine the chronology of ship burials. This new material has led Arne to revise his dating of the later tombs at Vendel (cf. p. 71 with Stolpe and Arne, *op. cit.*, pp. 59 f.).

Our knowledge of Swedish ship burials is also greatly advanced by the fresh evidence from Tuna. In contrast to Vendel, where only men were buried in boats, both men and women were found in the ship burials of Tuna. In two or three tombs a man and a woman were buried together. These double burials remind us of the possible sacrifice of a servant in the Oseberg ship (H. Shetelig and H. Falk, *op. cit.*, pp. 281 ff.) and of the dramatic description of the sacrifice of the wife of a Viking which is given by Ibn Fadlan, an Arabic physician of the ninth century (*Antiquity* VIII, 1934, pp. 58 ff.; other references in L.

Niderle, *Byt i kultura drevnih slavian*, Prague, 1924, pp. 88 ff.).

The Scandinavian ship burials are perhaps the most monumental expression of the belief in a sea voyage to the other world. For Sweden the earlier Vendel tombs of about 600 A.D. are usually taken as the earliest evidence of this belief; it seems to me, however, that such *Bildstenar* as that from Brokyrka (Lindqvist, *loc. cit.*, fig. 8), which date in the fifth and sixth centuries, have a similar significance. Besides, as Shetelig points out, the ship burials of the Vendel and the Viking periods are probably a revival of a belief already attested for the Bronze Age in Scandinavia (*op. cit.*, pp. 151, 280). Did this belief originate in Scandinavia independently? In view of the strong connections of Scandinavia with Central Europe and Italy in the later Bronze Age one may suspect that the funeral boats (in miniature size, of course) found in Sardinia and Italy as well as in Lydia may bear on this question. (Critical discussion by Von Bissing, *Röm. Mitt.* xliii, 1928, p. 29 n. 26 and p. 87; cf. M. Rostovtzeff, *Antike Plastik für Amelung*, 1928, pp. 214 ff.; cf. also a Lydian boat in the Museum of Princeton University.)

Outstanding among the objects found at Tuna are fibulae, pendants, and parts of horses' harness. On the whole, they are remarkably free from foreign influence and represent very well the various animal styles (Style I: pl. I, 2. Style II: pl. XXI, 1-4. Style III: pl. I, 1) and the different styles of the Viking period (Oseberg Style: pl. VIII, 8. Borre Style: pls. IX, 8-9, XV, 3, VI, 4. Jellinge Style: IX, 10. Ringerike Style: pl. IV, 8). Carolingian influence is seen by Arne in some instances (pls. I, 4-5, III, 6, X, 2). The lions which look back are, however, an Oriental motif. I should be inclined also to assume Eastern influence for the pendant with the bird (pl. IX, 11). The few other objects which betray foreign influence show the wide range of the Viking expeditions. The bronze implement decorated with two riders back to back (pl. XVII, 1) is connected with Siberian models; the stirrups found at Tuna are derived from the Russo-Hungarian type (pp. 65 f.); and the modern type of scissors is shown by Arne to have reached Sweden from the Islamic East through Russia (p. 63). Finally, the female figurine (pl. VII, 11) must be mentioned as one of the ventures of the Vendel period in the rendering of an individual human figure. It is dated about 800 A.D. and has been compared to Manx

crosses (E. Seaver, *op. cit.*, p. 114). It is also definitely similar to female figures on the *Bildstenar* of the eighth century (cf. Lindqvist, *Rig* vi, 1933, p. 117, figs. 13-14).

Because of the forthcoming publication on Walsgärde, Arne has refrained from drawing general conclusions on the basis of the Tuna material, but he has fulfilled splendidly the prime duty of the excavator—to make his material available. The publication should interest Classical archaeologists by its thorough method. Tuna presented no easy task, for the excavations continued with long intervals from 1893 to 1928. Arne has collected all records of former excavators; he has recorded every tomb both in a description and in detailed plans and elevations which enable the reader to see at first glance the location of every object. Aside from two short chapters on the burial rites and on the dating of the tombs, the book contains a penetrating discussion of the objects found. This publication is a fine performance by one of the leading scholars in Scandinavian archaeology and offers little opportunity for criticism. The German of the text is on the whole adequate, but occasionally technical terms are literally translated from Swedish, a procedure which does not always yield the correct German equivalent.

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LA SCULPTURE FIGURALE EN EUROPE À L'ÉPOQUE
MÉROVINGIENNE, by J. Baum. Pp. 147, pls. 80.
Editions d'art et d'histoire, Paris, 1937. 180 frs.

The author has furnished in this book an admirable summary of worth-while literature on the sculptural art of the Merovingian period, with an invaluable bibliography and 80 plates in collotype that reproduce for the most part unpublished or ill-published monuments. The compact text is divided into two chapters on "the cultural cycles of Europe," "general characteristics of the artistic evolution from the beginning of the invasions to the Viking epoch," and a third, descriptive of different groups of the monuments considered (sarcophagi, coins and medals, fibulae, belt-buckles, etc.), followed by an excellent commentary on the plates, bibliography, and indices of persons, places, and iconographic themes.

The first chapter sketches the racial succession in the cradle of Merovingian art in South Russia and the impregnation of Pontic style with Persian ideas. The eastward migration which brought the

Celts into acquaintance with this Pontic art, and the mingling of it with Roman motifs, produced the mixed style of La Tène. The same Pontic area gave the Eastern German tribes their initiation into decorative art, and the significance of the Goths as transmitters of the style is shown by such Euxine products as the cloisonné pendant inscribed with the name of the Sassanid Ardashir (226-241), found at Wolfsheim in Hesse. The animal style is reflected as far afield as English art from 450 and fifty years later in Scandinavia, while its Gothic origin is proved by animal-borders on objects found on the Gothic trail at Aquileia and elsewhere in Italy.

The *floruit* of Merovingian style falls in the seventh century. It is then that its characteristic features are found together—the interlace, more regular in Britain, more wayward on the Continent; animals, first in fragmentary rendering and then in all-over lacertines; the cloisonné (Granatanlagen) which still continues save in Scandinavia; the shift to abstraction in figured representations, notably in the native issues which begin about 450 to replace Roman coins and their imitations, and are slowly adopted by the barbarian nations over a period extending to 700, and in Scandinavia to the ninth century.

The style lives on till Carolingian times in the centers of Merovingian culture such as Austrasia, Neustria, and Burgundy, but in the eighth century long fibulae disappear along with long swords, their place taken by the continuing disc fibulae, which sometimes adopt the quatrefoil. Its longer survival is to be traced in lands untouched by the Carolingian "renaissance"—among the Lombards in Italy, the Visigoths in Spain, the Saxons and Celts of Britain, and the peoples of Scandinavia.

A summary of this sort cannot avoid oversimplification, and one is occasionally startled by precision of statement in a field that is notoriously weak in documentary and archaeological data. Thus we are categorically told that the Esdras miniature of the Codex Amiatinus is a leaf out of Cassiodorus' *Codex Grandior*, though the evidence of the manuscript itself does not support this attractive theory. The Ruthwell cross is dated ca. 700, with no reference to the stylistic and iconographic difficulties attending this date, however much it may be supported by other considerations. The early group of Christian sarcophagi, according to our author, belongs "aux premiers siècles de l'ère chrétienne"; but it is almost im-

possible to cite an unquestionably Christian sarcophagus that can be dated before 300. The statements that suggest criticism are indeed such references as the above to the late antique or Early Christian epoch, where the author's wide bibliographical quest has failed to discover some important recent writing (notably Alison Frantz's article in the *A.J.A.* on the open rho in the Chrism), and his citations of a vague but convenient "East Christian" source for occasional puzzles in the vocabulary of Merovingian art.

The book is a welcome guide through the bewildering literature of the *Völkerwanderungstil*, and in spite of its brevity succeeds in isolating the most important certainties that have emerged from research in this field during the past generation.

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POTTERY OF PECOS, Volume II, by *Alfred V. Kidder and Anna O. Shepard*. Papers of the Southwestern Expedition, Department of Archaeology, Phillips Academy, Andover, Mass., No. 7. Pp. xxxi+636, frontispiece in color, 309 figures (half tones, drawings), XI graphs, various tables and tabulations (unnumbered), bibliography; New Haven, Yale University Press, 1936.

The volume comprises three parts: "I. The glaze-paint, culinary, and other wares," by Dr. Kidder; "II. Technology of Pecos pottery," by Miss Shepard; and "III. Discussion," by Dr. Kidder. This review is particularly focussed on Part II; but it would be inadequate to single out Miss Shepard's contribution altogether, for Dr. Kidder deals with important historical aspects, ailments and remedies, and general needs of the Southwestern field. An understanding of these is imperative in order to appreciate "what a bombshell Miss Shepard's findings have thrown into the research" (xxiii).

Part I presents a culture historical account of the four chief categories of Pecos pottery, the glazed, undecorated smooth, culinary, and trade wares. The treatment follows a uniform, thoughtfully divided arrangement, which covers general characteristics, shapes, and details of decoration. The description is well supplemented by abundant illustrations placed conveniently in the text. Dr. Kidder's well-known foresight and mature scholarship are again clearly demonstrated

throughout his contribution. His critical review of the classificational systems proposed in the Southwest (pp. xxi ff.) reveals the caution, fair judgment, and open mind of a constructive thinker viewing his field in bird's-eye perspective and truly objectively. It is significant to note that Dr. Kidder prefers to retain the numerical as against the binominal scheme. It has become increasingly difficult for one not specializing in the Southwest to keep abreast of the growing and changing labyrinth of taxonomic terms locally applied to pottery. Dr. Kidder successfully demonstrates a wholly satisfactory method of classifying (in full cognizance of the arbitrary element involved, cf. p. xx) and describing (categorically and uniformly for each of the numerous types) an involved pottery complex.

Part II is a hitherto unprecedented achievement in ceramic technology. With this, her first publication, Miss Shepard immediately soars to first rank in the subject, in which nothing of a similar magnitude has ever been published before. The scope of the work is disclosed in the opening paragraph (p. 389): "The immediate purposes of a ceramic technological investigation are to identify materials and locate their sources, to study the indications of workmanship, and to describe properties by reference to exact, impersonal standards. There are two ultimate aims in the interpretation of technological data. The first is to trace the history of the potter's craft; the second is to recover more accurately and in greater detail than is possible by other methods the evidence which pottery preserves of cultural developments, contact, and influences. In one case, technology opens an almost untouched field; in the other, it offers a new approach to an old problem. The study is necessarily intensive and detailed, but its chief advantage lies in the fact that it is based on principles and procedures of the exact sciences."

Naturally, specialized training is imperative, and the technologist, chemist, and ceramist must combine with the archaeologist in coördinating all available methods and techniques. Technological procedure "is not advocated primarily for the purpose of classification" (p. 391). "The technological investigation is essentially both humanistic and experimental in its approach. . . . But it is not sufficient simply to analyze; it should be possible to duplicate characteristics of wares, and a great deal can be learned from synthetic tests. When constant study of every

stage in pottery making is necessary, the part which the potter plays can never be overlooked" (p. 392). "The present discussion is not given with any idea of laying down procedures which must invariably be followed or of treating fully the entire scope of the subject, but rather in the hope that it may be suggestive of the varied aspects and possibilities of the work, and that it may bring out the importance of thoroughness and exactitude. Certain of the tests outlined are fundamental and essential; they will apply in the study of any group of primitive pottery whatever its provenience, while other methods and problems considered are related specifically to the Southwest. The results of the Pecos study will serve to illustrate the significance of the technological data, but it must be remembered that the interest and value of the data are directly related to the state of ceramic advancement represented; the more highly specialized the technique and the greater the number of materials used the more there is for the ceramic technologist to learn" (p. 394).

Miss Shepard describes, in full detail, her methodology as applied to the Pecos material, and lucidly states the results procured, among which the identification, by actual analysis, of imported wares in several stages of the site's history, are especially significant. Pp. 437-445 are devoted to "Standards of Pottery Description for the Field Worker." Although these are obviously intended primarily for the Southwest, their essentials, properly modified to meet additional requirements, should be applicable anywhere. The summary of suggestions (pp. 444-445) is to be recommended for the reference file in the field and the laboratory. It is, undoubtedly, too early to set rigid standards for ceramic technology at large, and Miss Shepard is well aware of this (cf. the already quoted passage from p. 394, *supra*); but it cannot be denied that she has unimpeachably proved the dependability of a host of procedures by inductive test and analysis.

It would have been of service to elucidate in greater detail some of the procedures which, though perhaps elementary to the specialist, are not necessarily familiar to the archaeologist. Similarly, a sketch of the history of ceramic technology, at least in so far as it pertains to the New World, would have been in point. And illustrations of apparatus, of the preparation of thin sections; qualitative and quantitative tabulations, and comparative tables of physical prop-

erties; and a composite chart of the mechanical steps, and of the tests and analyses made, would also have aided the general reader. Yet it cannot be denied that none of these "omissions" minimizes the value of the book.

Miss Shepard's erudition, so obviously rooted in practical experience, is clearly in evidence. Her insistence on impersonal standards and on strict objectivism is at once a logical prerequisite to her approach and a constantly dominating force throughout her contribution. Her criticism, whenever voiced, is certainly well founded and justified, and while it applies primarily to the Southwest, it fits other fields as well. But it is rational skepticism rather than mere criticism that permeates Miss Shepard's tone in taking exception to certain fallacious "deductions." For those who might still feel leery about some of her specific contentions regarding such fallacies, it might be suggested that they try, for one thing, to demonstrate the celebrated "float" (cf. p. 441). The denunciation of the commonly practiced "identification" of natural *inclusions* and intentionally added *tempering* materials (as Miss Shepard distinguishes them) either by the naked eye or with a pocket lens, is certainly well taken, and the inherent dangers convincingly pointed out. And with respect to undemonstrable qualities in a given pottery fabric, the following statement (p. 430) sounds a rational note of warning: "Such terms as levigated and kneaded are particularly objectionable, since they designate processes in the preparation of clay which cannot be proven from observation of the [fired, i.e., *altered!*] paste." The section on "Determination of Firing Temperature" (pp. 422-429) plainly reveals the fallacy of such wholly subjective, and so generally used designations as "well fired, poorly fired" pottery. There can be no doubt that hardness, given in terms of Moh's scale, provides an objectively measurable standard and removes speculation. And it is noteworthy that the already mentioned outline of suggestions does not include any reference to the firing process.

Miss Shepard has established a concrete foundation upon which to build up the young discipline of ceramic technology. And it cannot be denied that she has already gone farther than any of her predecessors, and that her authority, on this continent at any rate, remains unchallenged. Indeed, Miss Shepard has opened a new discipline which, in my opinion, may well be called *ceramico*logy, if the broad basis, wide scope, and complex

implications of the subject and its methodology are to be expressed by a collective term. The concern of this discipline is to interpret and rationalize, strictly scientifically, pottery as a component of human culture; its approach is historical and analytical, its procedure coördinates and adapts those of the exact sciences; and its subject matter is drawn from archaeology as well as from ethnology. Ceramicology, of course, is not an end in itself, but merely a means to an end—a means with which, among other things, to elevate and intensify the scientific basis of culture historical researches.

Part III, which Dr. Kidder calls "Discussion" rather than conclusions (cf. p. xxiii), opens with describing the difficulties which confronted the authors, outlines the formulation of certain problems, defines the Anasazi ceramic family, and closes with a comprehensive review of the history of Pecos pottery. "In 'Anasazi' the reader encounters a term new to Southwestern archaeological parlance" (p. 589) which "has the same meaning (Old People) in Navajo that Hohokam bears in Pima. It would apply to the Basket Maker and the Pueblo groups which can be shown to have derived the basic framework of their material culture from the Basket Maker" (p. 590).

In dealing with the so-called "coiling," both authors are cognizant of the deficiency and looseness of the term (Dr. Kidder, pp. 297 ff., Miss Shepard, pp. 552 ff.). Yet they both group together *annular* building (rather its circuit variant as exemplified by the modern Pueblo method) and spiral building (specifically the variant depending on a series of linked fillets, as best exemplified by the *tectonic* principle of the corrugated ware). The reason for this is perhaps to be sought in the general confusion regarding the principle and criteria of the several distinct possibilities of constructing a vessel from fillets. And partially perhaps also to the equally common laxity in distinguishing the building process from other steps of pottery manufacture, particularly shaping; cf. the stipulated contrast between Anasazi and Hohokam wares on p. 590, brought out by comparing two wholly different principles, i.e. *construction* in the former ("coiling") and *shaping* (with paddle and anvil) in the latter.

It seems to me difficult to rationalize Dr. Kidder's cautioning of the archaeologist to remember "that the objects they excavate are the handiwork of man, and that to their lifeless substance

human beings have added something which no lens can reveal nor chemical precipitate" (p. xxii). For unless that "added something" be objectively determinable (not necessarily with microscope and test tube), how is it to be evaluated from the standpoint of its likely meaning in culture history? It seems to me that perhaps one possibility whereby to alleviate some of the current obstacles to advancement in archaeology is to adopt more generally and effectively the principle of high specialization so advantageously practiced in other endeavors. At least that is one of my reactions gained from reading the highly profitable reference book before me.

VLADIMIR J. FEWKES

PEABODY MUSEUM

REDISCOVERING ILLINOIS. By *Fay-Cooper Cole and Thorne Deuel*. Pp. xvi+295, 36 pls., 37 text figs. The University of Chicago Press, Chicago, Ill., 1937. \$2.

This volume is the first of a series to be devoted to the archaeology of Illinois and designed to embrace the investigations of the Department of Anthropology of the University of Chicago, engaged since 1925 in an intensive study of the archaeology of Illinois and the Mississippi Valley. The first volume is concerned primarily with Fulton County which, although not the scene of excavations until 1930-1932, has apparently been selected for the initial report because stratigraphical and chronological manifestations of several culture foci permit a more satisfactory introduction to major theoretical problems than the abundant material previously collected from other counties.

The greater part of the book is devoted to description of the sites, methods of excavation, cultural and skeletal contents, etc., and to statistical analyses of the objects retrieved from each site. These data when correlated with the available evidence from surrounding areas indicate that the Woodland pattern is of fundamental significance in this region and that the Middle Mississippi pattern is of late but prehistoric intrusion. Within the Woodland pattern the Hopewellian phase is the most recent, having been preceded by the Central Basin and Red Ochre phases (the latter being tentatively assigned to the Woodland pattern). The Black Sand focus, still imperfectly known, seems to be still earlier. As yet it has been impossible to assign dates to any of these levels but it is hoped that

studies in the dendrochronology of southern counties will permit cross-dating in those regions where satisfactory specimens of logs are not recoverable.

The extensive program undertaken by the University thus has already attained satisfactory results and there is promise that deeply significant conclusions can be drawn once the remainder of the great quantity of data, yearly being added to, is analyzed and correlated.

The University of Chicago deserves great commendation for carrying on this important activity which not only includes the excavation of sites and the museum study of the evidence secured but also the waging of an extensive campaign to combat vandalism and the ruthless rifling of sites by incompetent amateurs and professional pot-hunters who traffic in aboriginal objects. In some instances the University has protected significant sites by purchasing them.

All persons interested in American archaeology will welcome this first volume and look forward to seeing in print the other important results already attained by the University.

The volume is generously illustrated by half-tones and text figures. There are many charts and tables and an excellent glossary.

D. S. DAVIDSON

UNIVERSITY OF PENNSYLVANIA

THE ARMOR OF GALIOT DE GENOUILHAC, by *Stephen V. Grancsay*. Papers of the Metropolitan Museum of Art, No. 4. Pp. 36, frontispiece, pls. xxvi. New York, 1937. \$2.50.

Since the Metropolitan Museum, in 1919, placed on exhibition the armor of Galiot de Genouilhac, this gilded harness has been the chief treasure in a collection which ranks fourth or fifth among the world's great armories. Discriminating amateurs judge a suit primarily by its technical, aesthetic and historical importance. There are, of course, other considerations (rarity, completeness, state of preservation, etc.) to be weighed in any careful estimate, but it is the combined answers to the questions "How remarkable is its design and workmanship?", "How truly beautiful is it?", "Who wore it?", that give a suit its rating. By these criteria the Genouilhac harness has few rivals, not over twenty-five among the thousands that survive. Sir Guy Laking, English expert and Keeper of the King's Armoury, once said: "Take my word for it, it is the finest suit of armour in the world—yes, in the world!" A broad

statement, but there are those who agree with him.

That a dated (1527) masterpiece of such preëminence should have been exhibited in a museum for the last eighteen years without being published in a manner worthy of its rank is quite incredible. Yet not, after all, so incredible; the scholars who delve into the minutiae of even second-rate painting and sculpture look with coldness on the armorer's art. To them the creation of a superlative princely panoply required craftsmanship and nothing more—romantic hardware. The present writer recalls the visit to his home of a distinguished expert on prints. This gentleman walked into a fairly respectable private armory, looked around and remarked, "Well, we were all boys once." The merits of at least some twenty-five of the most important suits extant should be set forth in such completeness that serious students (not to mention the art-loving public) may learn to know them intimately. We have plenty of excellent books on the development of armor through the ages, plenty of catalogues de luxe of public and private collections, but, until the publication of Mr. Grancsay's *The Armor of Galiot de Genouilhac*, not one satisfactory monograph on any single suit. It raises our hope that the curators of some of the great European armories, using it as a model, may give us equally full reports on the outstanding treasures in their care.

Mr. Grancsay's attitude is that of the painstaking and conscientious scholar laying before us every fact and theory related to his subject. His text, with eight illustrations, covers twenty-eight double-column quarto pages. To this are added three pages of tables recording the number of lames in each element of the panoply, their hardness values inside and out (here Mr. Grancsay opens a new and fascinating field for research into the defensive strength of ancient armor) and the number and types of their rivets. A half page gives the references cited in the text. Finally, twenty-seven pages are devoted to fifty-one photographic reproductions of the armor as a whole, of its component parts and of the closely related harnesses of Henry VIII. The illustrations and photographs are of extraordinary value, in that they show the unusual structural features which, combined, make Genouilhac's suit unique and in that they give us, by a new process, details of etched surfaces in their original character.

The marvelous anatomy of the suit deserves the space Mr. Grancsay devotes to it. An unknown

master whom, with good reason, he assumes to have been one of the Milanese *Merveilles*, forged two hundred and nineteen plates (no two alike) and fitted them to form an articulated piece of sculpture, an eighty-pound, hollow, steel statue to coat a fighting athlete, to give him complete protection while leaving his freedom of movement as nearly as possible uncurbed. This master, evidently well acquainted with both the Gothic and the Maximilian styles of armor design, chose such features of each as suited his purpose and added innovations of his own. The helmet, for instance, is of a type advanced beyond what we should expect of the year 1527. Its visor and mezail are separate plates pivoting with the bevor through a single hole at each side of the bowl—the earliest known instance, in a close armet, of a style which later became common.

The collection with its borders turned outward in 15th century fashion, its plates overlapping upward and lying over instead of under a breast and back constructed each of three vertical plates—strange enough—a lance rest of most complicated adjustment, knee-cops with side-plates folding like fans, boots so articulated as to permit their wearer to bend his feet in any direction—all these are worthy of the closest study. Stranger by far, however, is the ventral defense worn inside the breastplate. One other similar piece is known, that belonging to an armor of Henry VIII, in the Tower of London. Mr. Grancsay ascribes the invention of this defense to an armorer in the employ of Francis I and quotes a message from the French king to Henry in which the former offers his friend a pair of cuirasses so designed as to take much weight off the shoulders and distribute it more evenly. To do this they must have been fitted with ventral plates. Only within recent years have such plates been identified definitely for what they are. As late as 1919 the experts failed to agree. In that year Sir Guy Laking wrote that the one in the Tower might have "come from the croupier of the horse armor," while his equally experienced friend Mr. S. J. Whawell considered it to be "a reinforcing piece for the left leg, guarding the thigh." Sir Guy adds that a similar plate is associated with the Genouilhac suit "described

by Dr. Bashford Dean as a defense worn within the breastplate."

The harness of Henry VIII referred to above and another quite similar, prepared probably by the same hand for the same king, are the only ones surviving that show a close resemblance to the Genouilhac suit. According to our author, however, this similarity hardly warrants assigning all three to even the same atelier.

Mr. Grancsay calls attention to the richness of the gilded decoration which covers the Genouilhac armor. While structurally a field harness, it is sumptuous enough to hold its own in the gayest royal parade or the most brilliant tournament. The etching is Italian, quite shallow, with smooth backgrounds instead of the usual shading. Mr. Grancsay's scleroscope tests reveal that its depth depends on the hardness of the surface; the softer the metal, the deeper has the acid bitten. There seems to have been no limit to the ingenuity of the artist who designed this etching. He never runs out of motives; one flows endlessly into another—a glittering picture-book of orderly chaos.

We can be positive when the armor was made (if not where and by whom), for the etched date, 1527, appears on three of its plates. Nor need we be skeptical of its historical attribution. Mr. Grancsay points out that Galiot de Genouilhac, at the age of sixty, was of a stature to be fitted perfectly into this harness. He has measured all parts of it and assures us that old Galiot stood over six feet in his armor, that his girth at the waist was forty two inches—a fine figure of a man. He died October 15, 1546. His daughter Jeanne, vicomtesse d'Uzés, was his sole heir. Her son became duc d'Uzés. Through him Genouilhac's splendid armor passed to the present family of that name (d'Uzés). It stood in the ducal chateau of Bonnelles till 1916 when the late Mr. William H. Riggs bought it for the Metropolitan. New York is fortunate to have so priceless a treasure in its keeping and all lovers of fine armor are deeply in Mr. Grancsay's debt for having given this masterpiece such an excellent monograph.

C. OTTO V. KIENBUSCH
NEW YORK

ABBREVIATIONS

The following abbreviations of the titles of publications will be used in the JOURNAL, other titles being uniformly abbreviated:

AA: Archäologischer Anzeiger.
AASOR: Annual of the American Schools of Oriental Research.
ABA: Abhandlungen der Preussischen Akademie der Wissenschaften, Berlin.
ActaA: Acta Archaeologica.
AdI: Annali dell' Instituto.
AEM: Archäologisch-epigraphische Mitteilung.
AJ: Antiquaries Journal.
AJA: American Journal of Archaeology.
AJN: American Journal of Numismatics.
AJP: American Journal of Philology.
AJSL: American Journal of Semitic Languages.
AM: Athenische Mitteilungen.
Annuario: Annuario della R. Scuola Archeologica di Atene.
Ant: Die Antike.
AntDenk: Antike Denkmäler.
AOF: Archiv für Orientforschung.
ARW: Archiv für Religionswissenschaft.
AV: Gerhard Auserlesene Vasenbilder.
AZ: Archäologische Zeitung.
BASOR: Bulletin of the American Schools of Oriental Research.
BCH: Bulletin de Correspondance Hellénique.
BdI: Bulletinino dell' Instituto.
BJ: Bursian's Jahresbericht.
BLund: Bulletin de la Société Royale de Lettres de Lund.
BMFA: Bulletin of the Museum of Fine Arts, Boston.
BMM: Bulletin of the Metropolitan Museum of Art, New York.
BMQ: British Museum Quarterly.
BrBr: Brunn-Bruckmann, Denkmäler.
BSA: Annual of the British School at Athens.
BZ: Byzantinische Zeitschrift.
CAH: Cambridge Ancient History.
CIL: Corpus Inscriptionum Latinarum.
CP: Classical Philology.
CQ: Classical Quarterly.
CR: Classical Review.
CR Acad Insc: Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres.
CVA: Corpus Vasorum Antiquorum.
CW: Classical Weekly.
Δελτι: Ἀρχαιολογικὸν Δελτίον.
DLZ: Deutsche Literaturzeitung.
Ἐφ: Ἀρχαιολογικὴ Ἐφημερίς.
FR: Furtwängler-Reichhold, Griechische Vasenmalerei.
FuF: Forschungen und Fortschritte.
GGA: Göttingische Gelehrte Anzeigen.
Gno: Gnomon.
HarvSt: Harvard Studies in Classical Philology.
Hesp: Hesperia.
IG: Inscriptiones Graecae.
ILN: Illustrated London News.
JAOS: Journal of the American Oriental Society.
JdI: Jahrbuch d.k.d. Archäologischen Instituts.

AMERICAN JOURNAL OF ARCHAEOLOGY

JEA: Journal of Egyptian Archaeology.
JHS: Journal of Hellenic Studies.
JOAI: Jahreshefte des Oesterreichischen Archäologischen Instituts.
JRAI: Journal of the Royal Anthropological Institute.
JRAS: Journal of the Royal Asiatic Society.
JRS: Journal of Roman Studies.
LAAA: Liverpool Annals of Archaeology and Anthropology.
MAAR: Memoirs of the American Academy in Rome.
MDOG: Mitteilungen der Deutschen Orient-Gesellschaft.
Mél: Mélanges d'Archéologie et d'Histoire.
MJ: Museum Journal of the University of Pennsylvania.
MonAnt: Monumenti Antichi.
MonInst: Monumenti dell' Instituto.
MonPiot: Monuments et Mémoires pub. par l'Acad. des Inscriptions (Fondation Piot).
MJb: Münchener Jahrbuch der bildenden Kunst.
NJ: Neue Jahrbücher für das klassische Altertum.
NNM: Numismatic Notes and Monographs.
NS: Notizie degli Scavi di Antichità.
NumChron: Numismatic Chronicle.
NZ: Numismatische Zeitschrift.
OIC: Oriental Institute Communications.
OLZ: Orientalistische Literaturzeitung.
PEFA: Palestine Exploration Fund Annual.
PEFQS: Palestine Exploration Fund Quarterly Statement.
PM: Evans, Palace of Minos.
PQ: Philological Quarterly.
Πράκτ: Πράκτικά τῆς Ἀρχαιολογικῆς Ἐταιρίας.
PW: Philologische Wochenschrift.
PZ: Prähistorische Zeitschrift.
QDAP: Quarterly of the Department of Antiquities in Palestine.
RA: Revue Archéologique.
RE: Pauly-Wissowa-Kroll, Real-Encyklopädie der Klassischen Wissenschaft.
REA: Revue des Études Anciennes.
REG: Revue des Études Grecques.
RendLinc: Rendiconti della Reale Accademia dei Lincei.
REP: Revue Epigraphique.
RevNum: Revue Numismatique.
RevPhil: Revue de Philologie.
RGK: Berichte der Römisch-Germanische Kommission des Deutsch. Arch. Instituts.
RHA: Revue Hittite et Asiatique.
RhM: Rheinisches Museum.
RivFil: Rivista di Filologia.
RM: Römische Mitteilungen.
SBA: Sitzungsberichte der Berliner Akademie.
SEG: Supplementum Epigraphicum Graecum.
SIG: Dittenberger, Sylloge Inscriptionum Graecarum.
SO: Symbolae Osloenses.
StEtr: Studi Etruschi.
Syr: Syria.
WS: Wiener Studien.
WV: Wiener Vorlegeblätter.
ZDMG: Zeitschrift der Deutschen Morgenländischen Gesellschaft.
ZfE: Zeitschrift für Ethnologie.
ZfN: Zeitschrift für Numismatik.

BIMILLENNARY OF AUGUSTUS' BIRTH

To commemorate the bimillenary of Augustus' birth, the following series of lectures will be given in Rome from July 7 to August 11, 1938:

Roman Art from the end of the Republican Age to the end of the first century A.D. Prof. B. Pace; 4 lectures, 6 field trips.

The architectural development of Rome under Augustus and his successors. Prof. G. Lugli; 3 lectures, 5 field trips.

The Roman Provinces during the first decades of the Empire. Prof. G. Q. Giglioli; 2 lectures, 2 visits to the Augustan Exhibition.

Augustus' Family. Prof. R. Paribeni; 3 lectures.

Augustus' Aides. Lecturer to be announced; 2 lectures.

Poets and prose writers of Augustus' circle. Lecturer to be announced; 6 lectures. Four collateral lecturers. Lecturers to be announced.

These lectures will be given in Italian, but a course in English on Roman Archaeology and Topography will be given if a sufficient number of students registers for it.

For further information address Howard R. Marraro, Italian University Bureau, Casa Italiana, Columbia University, New York City.

PRINCETON UNIVERSITY SUMMER SEMINAR IN ARABIC AND ISLAMIC STUDIES

JUNE 25 TO AUGUST 5, 1938

Sponsored by THE AMERICAN COUNCIL OF LEARNED SOCIETIES

The second Summer Seminar in Arabic and Islamic Studies will be held in the Graduate College, Princeton University, Princeton, N. J., under the directorship of Professor Philip K. Hitti, for a period of six weeks beginning Saturday morning, June 25, 1938. The courses are open to men and women of graduate standing and are designed to meet the needs of new students as well as those who attended the first Seminar in 1935. Teachers of philosophy and religion, Near Eastern and medieval history, Romance languages and fine arts will be offered an opportunity to acquire first-hand knowledge of some of the sources in the Islamic phases of their respective subjects.

The courses in the Arabic language and Arab history will be given by Professor Hitti, Dr. Nabih A. Faris and Dr. Edward J. Jurji. Those in the Turkish language and history will be offered by Dr. Walter L. Wright, Jr., President of Robert College, Istanbul. Professor M. Aga-Oglu of the University of Michigan will have charge of the courses in Islamic art. Dr. Muhammad Simsar of the University of Pennsylvania will give the courses in Persian.

Special lecturers will deliver each a series of lectures dealing with different phases of Islamic culture in Spain, the Eastern Mediterranean and Central Asia.

The tuition fee for the Seminar is \$40.00. Fees for room and board at the Graduate College are \$20.00 a week per person. A limited number of grants-in-aid are available for specially recommended and qualified students.

For further information address Dr. Nabih A. Faris, 58 Mercer Street, Princeton, N. J.

XX^e CONGRÈS INTERNATIONAL DES ORIENTALISTES

*Secrétariat: MUSÉES ROYAUX D'ART ET D'HISTOIRE, PARC DU CINQUANTENAIRE,
BRUXELLES, BELGIQUE*

En vertu de la décision prise par le comité du XIX^e Congrès des Orientalistes à Rome, le XX^e Congrès devra se réunir à Bruxelles.

Un Comité s'est formé en Belgique pour organiser la préparation du prochain congrès. Ce comité a décidé que le XX^e Congrès se réunira à Bruxelles du 5 au 10 septembre 1938.

Le comité adresse cette première circulaire aux orientalistes et aux institutions scientifiques en les priant de lui accorder leur collaboration, pour que le congrès soit assuré d'une parfaite réussite. Le comité se propose de faire paraître dans quelques mois une seconde circulaire, accompagnée de l'invitation définitive pour le Congrès.

Le Président,
LOUIS DE LA VALLÉE POUSSIN

Le Secrétaire général,
JEAN CAPART

CONGRÈS INTERNATIONAL DES SCIENCES ANTHROPOLOGIQUES ET ETHNOLOGIQUES

DEUXIÈME SESSION, COPENHAGUE, 1 AOÛT-6 AOÛT 1938

Il est proposé de diviser les travaux du Congrès en sections de la façon suivante:

A. <i>Anthropologie physique.</i>	E. <i>Ethnographie.</i>
B. <i>Psychologie.</i>	F. <i>Sociologie et religion.</i>
C. <i>Démographie.</i>	G. <i>Linguistique et écriture.</i>
D. <i>Ethnologie.</i>	

La cotisation des membres du Congrès est fixée à 30 couronnes danoises. La carte de membre donne le droit d'assister à toutes les réceptions, à toutes les réunions, d'y voter, de prendre part aux discussions et de recevoir les comptes-rendus gratis et les autres publications du Congrès à des prix réduits. Deux personnes, au maximum, appartenant à la famille de chaque membre auront le droit de recevoir chacune une carte de membre-associé au prix de 15 couronnes danoises par carte. Les membres-associés pourront assister aux séances, aux réceptions et aux excursions, mais n'auront ni voix, ni vote et ne recevront pas les comptes-rendus.

Les bulletins d'adhésion et les cotisations doivent être envoyés au Trésorier du Congrès International des Sciences Anthropologiques et Ethnologiques, Nationalmuseet, 10 Ny Vestergade, Copenhague K, et toute autre communication doit être adressée aux Secrétaires Généraux du Congrès International des Sciences Anthropologiques et Ethnologiques, également au Nationalmuseum.

*Thomas Thomsen, Kjeld Rørdam,
Président du Congrès. Trésorier du Congrès.*
*Kaj Birket-Smith Alan H. Brodrick John L. Myres
Secrétaires Généraux du Congrès.*

BIBLIOGRAPHICAL SOCIETY OF AMERICA

The Bibliographical Society of America was organized in 1904 and incorporated in 1927. It includes in its membership those interested in bibliographical problems and projects of all kinds, as book collectors, librarians, scientific bibliographers, book dealers, and those interested in general bibliography. The Society has meetings once or twice a year, sometimes at Christmas time and usually in conjunction with the annual meeting of the American Library Association. Membership costs \$3.00 per year, and members receive the *Papers* and the *News Sheet*. Libraries may join as institutional members.

The Society publishes the B. S. A. *Papers*, of which at least one number is published annually, in which appear the papers delivered at the Society's meetings. It also issues the B. S. A. *News Sheet*, which appears approximately quarterly, and is the informal news organ of the Society. No. 45 has appeared.

In 1919 the Society published the important work "Census of Fifteenth Century Books Owned in America," and is at present engaged in the preparation of the "Second Census." The Society has completed the publication of Sabin: "Dictionary of Books Relating to America." The Society also published the "Index to the Bibliographical Society (London) Publications and the Library," in 1934. In 1932 the Society took charge of the handling of the American subscriptions to the new reprint of the British Museum Catalog, one of the outstanding catalogs of the world. Since 1933 the Society has been in charge of the preparation of the *Union List of Newspapers*, which is to appear in 1936.

Those interested in joining may send their names to the Secretary, Henry B. Van Hoesen, Brown University Library, Providence, Rhode Island, who will put them before the Council, after which the Treasurer will send a statement of dues. The Society needs the membership and co-operation of every lover of bibliography in order to render the greatest possible service.



PLATE I.—CAVE CHAPEL OF S. CROCE IN ANDRIA (BARI). THE CREATION OF EVE



PLATE II.—CAVE CHAPEL OF S. VITO VECCHIO IN GRAVINA (BARI). FRESCO IN THE APSE: DETAIL



PLATE III.—CAVE CHAPEL OF S. NICHOLAS IN FAGGIANO (TARANTO). S. THEODORE



PLATE IV.—CAVE CHAPEL OF S. NICHOLAS IN FAGGIANO (TARANTO). S. GEORGE



PLATE V.—CAVE CHAPEL OF S. MARY IN POGGIANO (LEcce). MADONNA WITH CHILD BETWEEN THE ARCHANGELS, MICHAEL AND GABRIEL.



PLATE VI.—CAVE CHAPEL OF S. MARY IN POGGIARDO (LEcce). THE ARCHANGEL MICHAEL.



PLATE VII.—CAVE CHAPEL OF S. CHRISTINA AND MARINA IN CARPIGNANO (LECCE). CHRIST OF 959 A.D.



PLATE VIII.—CAVE CHAPEL OF S. BIAGIO IN S. VITO DEI NORMANNI (BRINDISI). THE FLIGHT INTO EGYPT

PLATE VIII.—CAVE CHAPEL OF S. BIAGIO IN S. VITO DEI NORMANNI (BRINDISI). THE FLIGHT INTO EGYPT



PLATE IX.—CAVE CHAPEL OF S. VITO VECCHIO IN GRAVINA (BARI). VISIT TO THE SEPULCHRE



PLATE X.—COINS OF SERMYLIA, TERONE, POTIDAEA AND THE CHALCIDIC STATE, FOUND AT OLYNTHOS



1



2

PLATE XI.—TETRADRACHMS OF SERMYLIA AND POTIDAEA



PLATE XII.—COARSE BUT GENUINE TETRADRACHM OF THE CHALCIDIC STATE



B

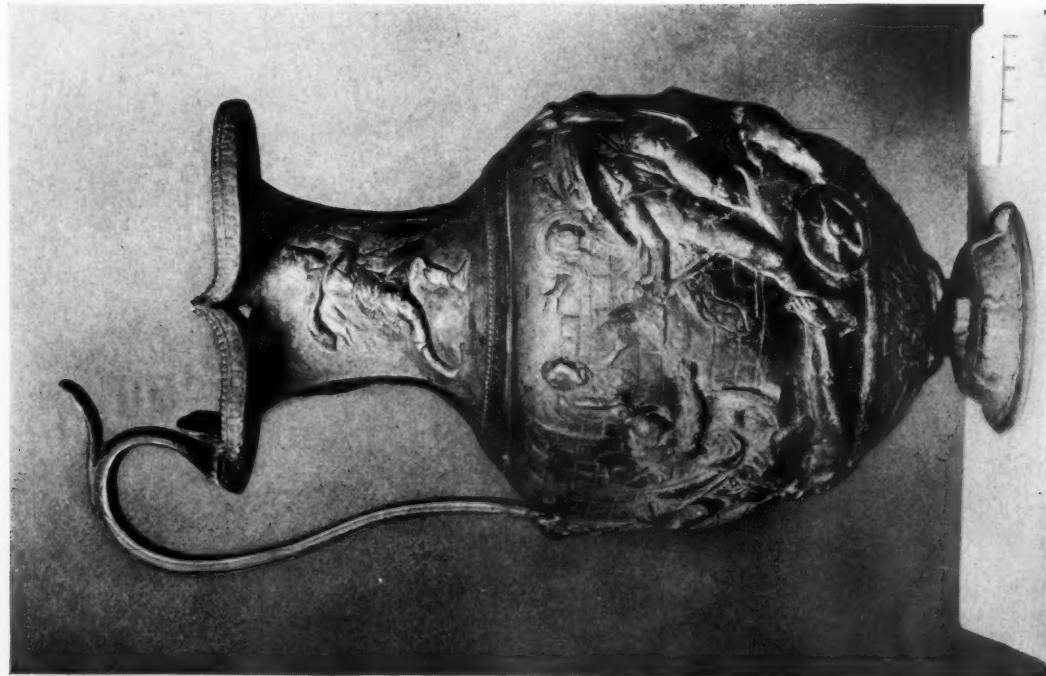
PLATE XIII.—SILVER JUG FROM BERNAY (Photo Giraudon)
A: Achilles Mourning the Death of a Friend
B: The Ransoming of Hector's Body



A



B



A

PLATE XIV.—SILVER JUG FROM BERNAY (Photo Girandoni)
A: Achilles Dragging the Body of Hector
B: The Death of Achilles



B

PLATE XV.—A: Silver Jug from Boscoreale (Photo Giraudon)
B: Bronze Jug from Coudreu (Photo Giraudon)



A